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April, 1952

SOAP and Sanitary Chemicals

In this issue...

Allergy as a factor in product liability cases

* * *

Floor products selling—industrial buyers' views

* * *

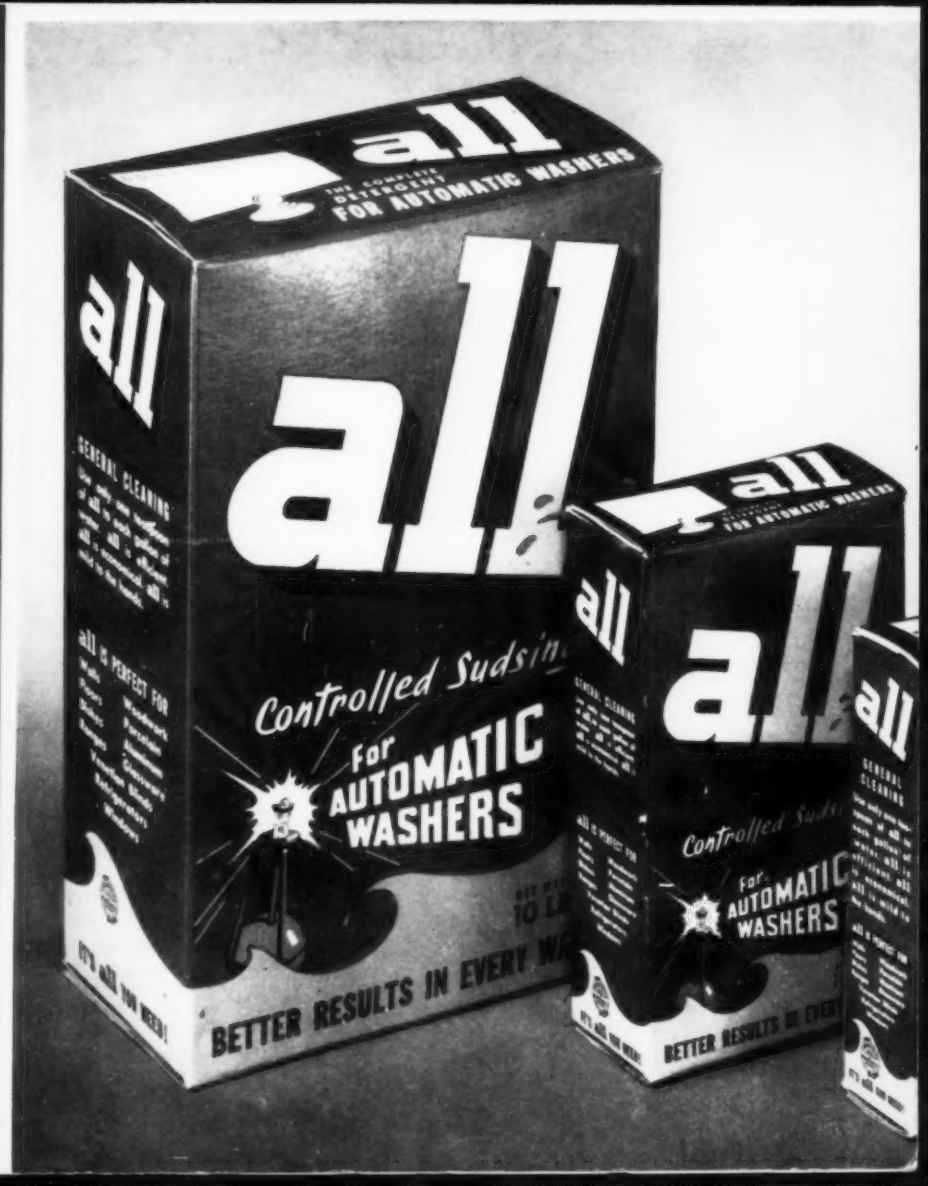
Continuous soap making—is it an art or science?

* * *

New type steam cleaners as aids in maintenance

* * *

Cover photo . . . New prize winning carton for "All" detergent made by Detergents, Inc., Columbus, which took first place in soap category during recent Folding Paper Box Association of America meeting in Chicago. Carton by U. S. Printing & Lithographing Co., Cincinnati.



for Water Softeners

. . . Bath Crystals

. . . Cleaning Compounds

SNOWFLAKE CRYSTALS is a true sesquicarbonate of soda made by Solvay. A beautiful, snow-white, crystalline product of top quality and purity, SNOWFLAKE CRYSTALS has been used for over 50 years by America's foremost compounders and repackers. Solvay Technical Service is available to help you with any problems regarding your formulae. Contact the nearest Solvay office; there's no obligation.

REG. U.S. PAT. OFF.

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Alkalies Chemicals
Since 1881

Soda Ash • Caustic Soda • Caustic Potash • Chlorine • Potassium Carbonate
Calcium Chloride • Sodium Bicarbonate • Specialty Cleansers • Methanol
Sodium Nitrite • Formaldehyde • Monochlorobenzene • Para-dichlorobenzene
Ortho-dichlorobenzene • Ammonium Bicarbonate • Ammonium Chloride • Nytron

INTEGRITY FOR YOUR BRAND

Your integrity • your reputation

your prestige • your sales • your profits

...all are at stake each time you order a

product under your private label.

UPON the product your manufacturing source puts in a container under your label and brand . . . depends the success or failure of repeat sales.

SANITARY Maintenance Chemical jobbers and distributors have grown to depend on the consistent quality of Fuld Brothers products. And the success of many firms over the past 25 years has been aided materially by the quality products, sales training, merchandising and advertising help of the Fuld organization.

The Fuld 84 page Descriptive Price Book . . . covering 23 basic sanitary maintenance chemical departments and over 241 products . . . is available to any recognized jobber or distributor. Write today.

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MANUFACTURING CHEMISTS

Warehouses in Principal Cities

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Ask about Fuld's Color Affect-Lithography Direct-on-the-Container Labeling Process that is revolutionizing private brand labeling. *C.A.L. is available for your use . . . even in small quantity orders.

A GUIDE

TO WAX PRODUCTS PURCHASING FOR PRIVATE BRAND RESALE

An honest appraisal of floor wax products as we see it is offered to guide wax buyers who want the best quality money can buy...

SELF POLISHING WAXES

Candy's Supreme (standard)
Candy's DeLuxe
Bright Beauty (standard)
Candy's No. 640
Candy's Supreme Special WR
CAND-DOX #CS
CAND-DOX #BB

Seven floor waxes that *are* all-around top quality for any given traffic condition. Each imparts the finest protection and beauty to floors for which they are best suited.

Bright Beauty FLOOR CLEANER

An outstanding material for removing even the heaviest wax film and dirt.... Brings neglected floors "back to normal." The *right* cleaning agent to insure the most efficient floor maintenance.

Bright Beauty CREAM FURNITURE POLISH

A cream furniture polish that spreads easily, polishes without excessive effort and imparts a deep impressive lustre. Too, it permits *repeated repolishing* with a dry cloth saving reapplication time and again; truly a very economical polish of very highest quality.

Bright Beauty PASTE WAX

A paste wax that is properly blended and refined from excellent quality solids and solvents that produce the best drying time and thorough evaporation. A wax that is easy to handle, having "creamy" consistency and stability throughout its stocking and usage period.

Bright Beauty LIQUID (spirit) PREPARED WAXES

Complete line of spirit dissolved waxes that meet a wide variety of demands for durability, color and types of usages. Each its own "Dry Cleaner," they keep a surface waxed with a superb protective coating necessary to many difficult surfaces such as certain floors (where adaptable), bars, wallpaper, etc.

Bright Beauty GLASS POLISH & CLEANER and SILVER POLISH

As a Glass Cleaner (pink color) it applies evenly with little effort, wipes off easily with negligible "powdering" and produces an undeniable "feel" of cleanness to glass that is actually true in fact. Different in color only as Silver polish, it imparts a highly desirable lustre to all silver *without* abrasion and can even correct the abuses of scratchy, "quick-polish" inferior products.

Bright Beauty DANCE FLOOR WAX

Basic advantages are freedom from "balling up," thus does not gather dirt and impregnate the floor with hard spots difficult to remove...also is free from dusty effects. Adds the protective quality to expensive ballroom floors that means more "floor-years" to users everywhere.

Bright Beauty Heavy Duty PASTE CLEANER

Really *cleans* and *scours* more effectively and quicker than most scouring powders. Depending on application, it can clean to perfection even painted walls to provide a suitable repainting surface. 100% active, free from excessive abrasive quality, it frees almost every surface from all forms of foreign matter to perfection.

1. BEAUTY AND DURABILITY

should be considered together. Initial appearance is important, but for a waxed surface to remain beautiful it must be durable. Durability depends not only on resistance to the abrasion of traffic, but even more so on resistance to the collection of dirt and to discoloring traffic marks. Durability is really measured by how long the waxed surface maintains a nice appearance before the necessity of complete removal and re-waxing.

2. ANTI SLIP

qualities are necessary in a good wax as a matter of safety underfoot. This important quality does not necessarily require the sacrifice of beauty and protection which are the foremost original reasons for the use of a wax. Look for the proper balance—a wax film which is not excessively slippery yet which is not tacky and does not excessively collect dirt.

3. WATER RESISTANCE

is important, particularly when considering the possibility of wet traffic and the necessity for frequent damp mopping for the purpose of removing surface dirt. Overdoing this quality means greater difficulty in applying multiple coats of wax and may seriously increase the difficulty in removal when complete cleaning and re-waxing is necessary. Water resistance is important, but so is the quality of removability.

4. SOLID CONTENT

when expressed in percentage is not nearly as important as the *quality* of the solid content. When considering good quality, 12% of solids answers most needs for good planned maintenance programs. Two applications of 12% will give better results than one of 18%. However, the more concentrated material is useful for some programs of maintenance and particularly on "washed-out" floors, etc. Over-waxing should be avoided so that periodic complete removal will not be too difficult.

5. CARNAUBA WAX

is still the most important basic ingredient in our floor waxes. When refined and compounded with other important ingredients and "KNOW HOW," it aids materially in producing the most important features of a good floor wax...ALL AROUND QUALITY OF PERFORMANCE.

● **ALL AVAILABLE FOR PRIVATE BRAND ONLY**
We do not compete with our jobbers for consumer sales. We sell only to distributors, except for experimental accounts in Chicago essential to research.

Wax Specialists for over 60 years

Candy & Company, Inc.

2515 W. 35th ST., CHICAGO

SOAP and Sanitary Chemicals

Volume XXVIII, No. 4 April, 1952

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254 W. 31 St., New York 1, N. Y.

Chicago Office:
333 N. Michigan Blvd.

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Subscription rates: U. S., $4.00 per year; Canadian, $5.00; Foreign, $6.00. Copy closing dates—22nd of month preceding month of issue for reading matter and 10th of month preceding month of issue for display advertising. Entered as second-class matter June 16, 1949, at the Post Office, New York, N. Y., under the act of March 3, 1879.

here's a blue chip investment

that can't miss paying good dividends

Have you recently studied the advantages in changing from 50% liquid caustic soda to 73%? A number of Columbia-Southern customers have made the change and in every instance the results have proved conclusive: A HIGH PROFIT RETURN ON EVERY CARLOAD OF 73% CONSUMED.

Here's an actual case study of three typical Columbia-Southern customers who made the change.

Customer	Cost of 50% liquid	Cost of 73% liquid	Per Cent of Savings	Total $ Savings per year	Cost of equipment and installation necessary to effect such savings	Return on Investment First Year
A	$ 68,240	$ 65,390	4.2%	$ 2,850	$2,650	108%
B	704,600	669,500	5%	35,100	3,500	1003%
C	171,800	164,500	4.3%	7,300	2,055	355%

Cost figures are based on market prices and freight rates effective January 1, 1952

As you will note from the study, the cost of the equipment and installation necessary for this profitable changeover is more than offset by the first year's savings. The small investment earns big dividends.

It will pay you to investigate today the extra profits that may be yours by making this change in your purchase of caustic soda. There is no problem in securing the diluting equipment. The system has been thoroughly tested and proved by over 10 years actual experience in applying high grade 73% caustic soda.

Write today. We will assign one of our technical specialists to discuss your individual case and to make recommendations.

COLUMBIA-SOUTHERN
CHEMICAL CORPORATION
SUBSIDIARY OF PITTSBURGH PLATE GLASS COMPANY

EXECUTIVE OFFICES: Fifth Avenue at Bellefield, Pittsburgh 13, Pennsylvania

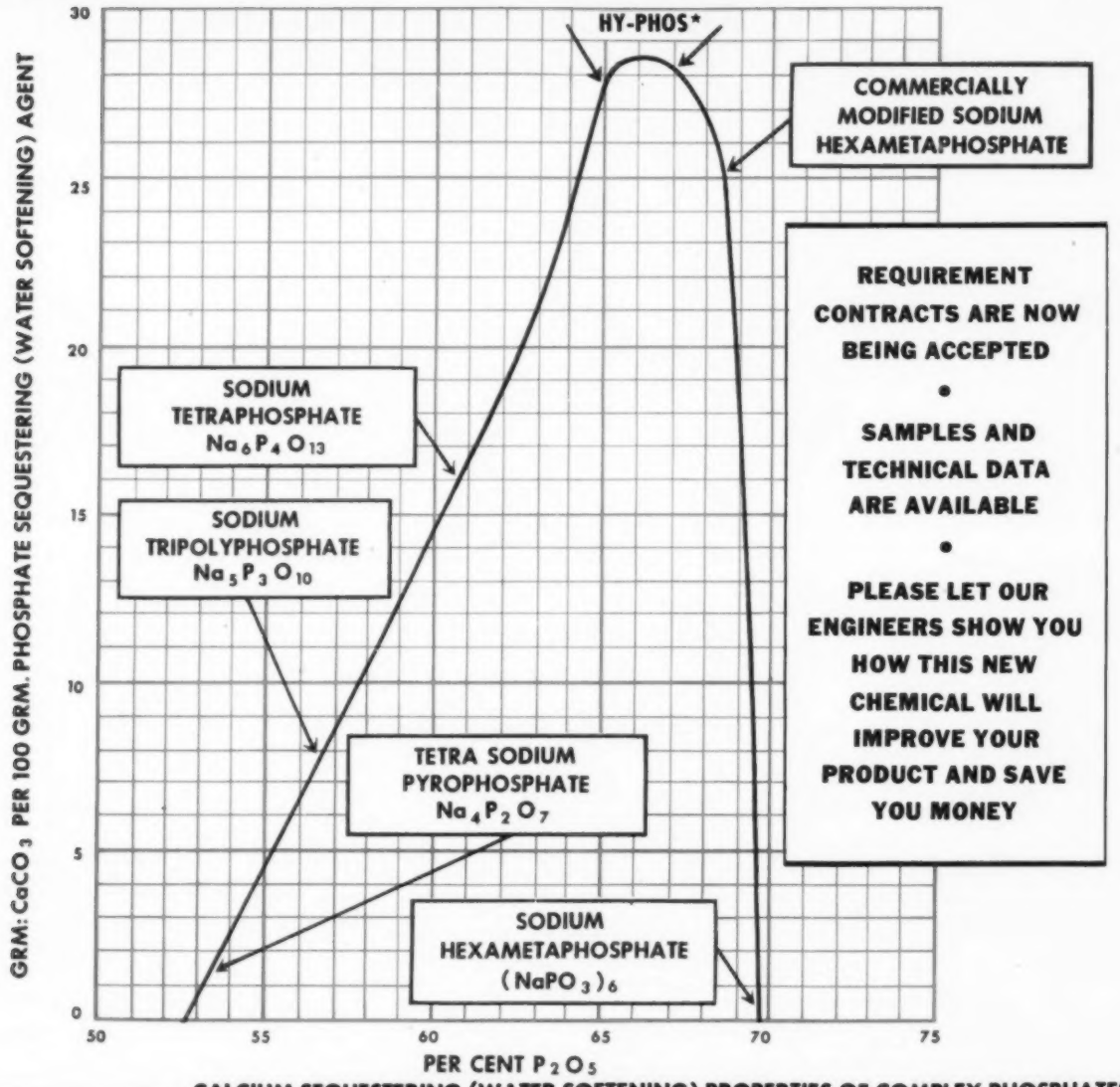
DISTRICT OFFICES: Boston, Charlotte, Chicago, Cincinnati, Cleveland, Dallas, Houston, Minneapolis, New Orleans, New York, Philadelphia, Pittsburgh, St. Louis

HY-PHOS*

THE AMAZING NEW SODIUM GLASSY PHOSPHATE

FOR-

SOAPS AND DETERGENTS
TREATING DRILLING MUDS
PAINT REMOVERS
TEXTILE PROCESSING
WATER TREATMENTS
CLEANING COMPOUNDS
BOILER WATER COMPOUNDS
METAL CLEANERS
MAKING SOAP POWDERS
ETC.



CALCIUM SEQUESTERING (WATER SOFTENING) PROPERTIES OF COMPLEX PHOSPHATES USING SOAP AS AN INDICATOR

REQUIREMENT CONTRACTS ARE NOW BEING ACCEPTED

•

SAMPLES AND TECHNICAL DATA ARE AVAILABLE

•

PLEASE LET OUR ENGINEERS SHOW YOU HOW THIS NEW CHEMICAL WILL IMPROVE YOUR PRODUCT AND SAVE YOU MONEY

*U. S. PATENT NO. 2,574,047 GRANTED NOV. 6, 1951

AMERICAN DYEWOOD COMPANY,

RIVERSIDE MILLS, CHESTER, PA.

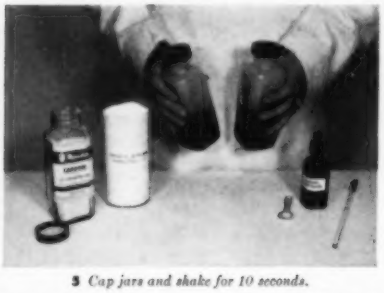
Dependable Source for Chemical Raw Materials

1 *Add equal amounts of your product to each jar.*

2 *Add small quantity of Carbose to one and dissolve.*

3 *Add carbon suspension to each jar.*

4 *Place a cloth swatch in each.*



5 *Cap jars and shake for 10 seconds.*

6 *Withdraw swatches.*

7 *Place swatches in rinse water.*

8 *Rinse by shaking for 5 seconds.*

9 *Remove swatches . . . and COMPARE!*

Make Wyandotte's 2-minute Soil Deposition Test yourself. See what Carbose can do for *your* detergent product!

BULLETIN BOARD

Soda Ash:

To insure adequate supply for all our customers even in periods of short supply, we are expanding our Soda Ash production facilities. **Meanwhile, there's plenty to go around now.**

New Pluronics*:

You'll want to look into this **first 100%-active flake nonionic ever commercially available.** It's another Wyandotte first.

Caustic:

Whether your soap process is continuous or batch kettle . . . whether you manufacture detergents or bleaches, Wyandotte has a grade of caustic that will satisfy your needs. Samples and information available upon request.

Kreelon*:

Much comment from detergent compounders on newly improved Kreelon (an alkylarylsulfonate-type detergent) has to do with **its greater and more rapid solubility.** Ask for a complete report.

ONE PERCENT Wyandotte Carbose improved detergency up to 40%!

Reduction in the cost of raw materials as high as 50% by use of CARBOSE* formulations . . . that's the kind of report we're getting on CARBOSE from the field!

It's no surprise. In carefully controlled tests on cotton, this outstanding "detergency promoter"—as little as 1%—*increased soil removal and whiteness retention as much as 10% to 40%* in different formulations with synthetic detergents and builders. CARBOSE promotes long-lasting suds, reduces skin irritation—ideal for dishwashing, car-washing and other compounds where emolliency is desirable.

This superior product is typical of Wyandotte. For the quick facts on current production, improvement and development of other Wyandotte chemicals for soap and synthetic formulations, read the "Bulletin Board," left. For samples with which you can make the above test yourself or for more complete information, write—*Wyandotte Chemicals Corporation, Wyandotte, Michigan. Offices in Principal Cities.*

*REG. U.S. PAT. OFF.

Wyandotte
CHEMICALS
FOR SOAPS AND DETERGENTS

a proven smash hit merchandising plan to

LIFT your repeat-sales volume by its bootstraps with

Mayntane

the sensational plasticised

LIQUID FLOOR MAINTENANCE COMPOUND

LIFTS dirt off floor with ONE STROKE!

INSTANTLY makes *any* floor twice as clean as labor-wasting brush sweeping ever can and **PROVES IT** in a startling *15 second demonstration.*

ASTOUNDED DISTRIBUTORS sell and repeat on MAYNTANE at a faster clip than any other floor maintenance product in the last decade. Their salesmen simply tell buyers that MAYNTANE will make a just-cleaned floor look dirty by comparison—*and proceed to prove it in exactly 15 seconds.*

THIS DEMONSTRATION lets skeptical buyers see how MAYNTANE actually lifts dirt off floors like a magnet, lays down a gorgeous anti-slip lustre film and cuts cleaning time well over 80% because ONE STROKE DOES IT!

BUT THE PRODUCT itself *plus* the astonishing demonstration is only the beginning of the MAYNTANE bonanza. We provide accepted distributors with one of the most profitable sales-advertising-and-merchandising packages in this industry. If you are looking for a magnificent opportunity to lift your repeat sales volume by its bootstraps and spark your entire line . . .

MAIL THIS COUPON

Money Back Guarantee

MAYNTANE does everything we say or is returnable for full credit. YOU CAN'T GET STUCK.

Direct Mail Campaign

MAYNTANE has proven itself a strong direct mail seller. That's why we provide you with a complete smash-hit mail campaign FOR FREE.

Applicator Deal

Deal is nationally advertised to your trade. You get and give deluxe top quality yarn brush applicators at no extra cost. INCLUDED WITH EACH SHIPMENT!

MAIL COUPON TODAY

Hysan PRODUCTS COMPANY

932 West 38th Place, Chicago

Send immediate details on MAYNTANE and sales-advertising-merchandising plan.

Company _____

Street _____

City _____

By _____

WESTVACO ALKALIS TRAVEL FIRST CLASS TOO!

"The best is none too good"—when additions and replacements are made in the Westvaco Alkali tank car "fleet". Preponderantly of post-war manufacture, our several hundred tank cars are fitted with every modern protective device for safe, uncontaminated delivery of high-quality Westvaco Alkalis.

For instance, the twenty-five new tank cars now going into service have such advanced features as:

Natural rubber latex lining to prevent iron pick-up enroute.

Ultralite Fiberglas insulation 6" thick to assure easy Mid-Winter unloading.

Special inside hinged-type, eight-line, coated coil heaters to facilitate heating *and cleaning*.

I. C. C. Regulation Safety-Dome and Platform —plus the finest couplings to make unloading safe and fast.

Good products deserve good "packaging". We endeavor to safeguard the quality of Westvaco Alkalis at every step from the brine well to customers' storage tanks. If we aren't supplying a fair share of your alkali requirements, we'll welcome the opportunity to talk things over.

CAUSTIC SODA · CAUSTIC POTASH · NATURAL SODA ASH

WESTVACO CHEMICAL DIVISION
FOOD MACHINERY AND CHEMICAL CORPORATION
161 EAST 42nd STREET, NEW YORK 17, N. Y.

Chicago, Ill. • Cleveland, Ohio • Cincinnati, Ohio • Charlotte, N.C. • St. Louis, Mo. • Pocatello, Idaho • Los Angeles, California • Newark, California

A SERVICE FOR JOBBERS...

who build business on quality products
who value their customers' continued satisfaction
who do not sell by price alone
who want to give <u>better</u> service

If your organization fits this description, you should be selling Oil Specialties' *quality* products for greater profits!

Oil Specialties & Refining Co. offers you the know-how and experience of a company that has been making maintenance products since 1880—with a sales satisfaction record that is unsurpassed.

We offer you, further, *a customer service organization*—always ready... one that will go out into the field as an integral part of *your* organization to help your salesmen solve any interior maintenance problems facing their customers! This policy is basic with us, and has created thousands of dollars in sales for an imposing list of our customers.

As a jobber, you know how important confidence in your products and reliability of service can be—not only in *making* customers, but in *keeping* them. We know we can be a vital factor in bettering your business. We can prove it!

Floor Waxes • Disinfectants • Cleaners • Soaps • Polishes

PACKED UNDER YOUR LABEL OR OURS

OIL SPECIALTIES & REFINING CO., INC.

18 BRIDGE STREET, BROOKLYN 1, NEW YORK

Smartly styled Duraglas stock bottle E-1596 is ideal for liquid starch. Attractive label and closure combination gives your brand sales impact.

Brisker sales with a CRISPER package

Give your product a helping hand at the point of sale by styling your package to attract customer attention. You can do it, and still keep within commercial limits on container costs.

Owens-Illinois has more than 1400 different sizes and styles of stock-mold Duraglas bottles to choose from. And you'd never guess they're stock items once we add a smart closure in the right color and set them off with eye-stopping labels.

No matter what the market conditions may be, it doesn't pay to let your package get out of the *habit* of selling.

Duraglas bottles are protectors of quality

OWENS-ILLINOIS GLASS COMPANY • TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

Sodium Tripolyphosphate

Tetrasodium Pyrophosphate

BLOCKSON Sodium Phosphates

Trisodium Phosphate
Crystalline
•
Monohydrate

Sodium Polyphos

Sodium Polyphos is Blockson's brand name for a water soluble Glassy Sodium Phosphate with the desirable characteristics of Sodium Hexametaphosphate and Sodium Tetraphosphate.

BLOCKSON IS ALSO A MAJOR PRODUCER OF...

	SODIUM ACID PYROPHOSPHATE
SODIUM SILICOFLUORIDE	CHLORINATED TRISODIUM PHOSPHATE
SODIUM FLUORIDE	DISODIUM PHOSPHATE Anhydrous • Crystalline
HYGRADE FERTILIZER	MONOSODIUM PHOSPHATE Anhydrous • Monohydrate

BLOCKSON

BLOCKSON CHEMICAL COMPANY JOLIET, ILLINOIS

News of MONSANTO Chemicals

OF SPECIAL INTEREST — TO FORMULATORS

PROFITABLE INFORMATION for FORMULATORS

If you are in any way interested in formulating detergent cleaners — either for resale or for private labeling—you may find this advertising spread of considerable value . . . Here, the Phosphate Division of Monsanto presents a brief resume of several of its more important phosphate products which have for many years played a profitable part in the formulation of detergent cleaners for industrial, commercial and household use.

STP — sodium tripoly phosphate

Monsanto Sodium Tripoly Phosphate (generally referred to as STP) is one of the newest of the sodium phosphates. It combines outstanding calcium sequestering power with excellent detergency, physical and chemical stability and high water solubility . . . STP is compatible with all alkalies and yet, by itself, exhibits a mild alkalinity that is not deleterious to hands or finest fabrics.

STP—Sequestering Action and Water-Softening Power

The sequestering action of Monsanto STP is of particular significance because of its value in the control of hard water. In cleaning operations where soap is used, it eliminates the formation of insoluble scum and actually puts the soap to work immediately. Where insoluble soaps have been formed previously, STP works to redissolve them and return them to their original active form.

The ability of Monsanto Sodium Tripoly Phosphate to regenerate or redissolve insoluble calcium and magnesium soaps is of great importance in many operations. For instance, when clothes containing a residue of insoluble curds are agitated in a solution of STP, the STP will regenerate or redissolve the insoluble soaps and remove them completely from the clothes. The fabric is then restored to its original clean condition.

STP—and Solubility

Sodium Tripoly Phosphate has a relatively high solubility in water—in this respect it has an advantage over TSPP, since at room temperature it is about 4 times as soluble . . . For instance, STP is soluble to the extent of 15 parts per 100 of water at 15° C, and 29 parts per 100 of water at 90° C.

STP—and Detergency

Sodium Tripoly Phosphate is widely used as a builder or detergent aid in soaps and synthetic detergents—when combined with other alkalies, synthetic detergents or soap, it makes an outstanding contribution to the detergency of the mixture. This characteristic is particularly valuable in industrial detergent compositions such as metal cleaning, dairy equipment and dishwashing.

STP—Condensed List of Typical Uses

The versatility of Monsanto STP points the way to its many applications in industrial cleaning and hard-water control:

- Detergent aid for synthetic detergents
- Dishwashing compounds
- Bottle washing
- Dairy cleaners
- Metal cleaners
- De-inking of paper

TSPP — tetra sodium pyrophosphate

Tetra Sodium Pyrophosphate (commonly abbreviated TSPP) plays a major role in industrial cleaning because it combines unique properties as a water softener, emulsifier, dispersing and deflocculating agent, detergent and a builder for soaps and synthetic detergents.

Monsanto TSPP rates a special preference because it combines these desirable performance characteristics with unexcelled purity, chemical and physical stability.

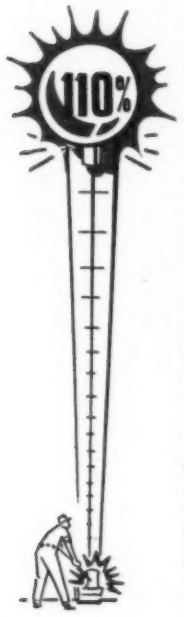
WORLD'S LARGEST PRODUCER

Monsanto is the world's largest commercial producer of elemental phosphorus of better than 99.9% purity. Still more capacity is being added to Soda Springs, Idaho.

TSPP—Sequestering Action and Water-Softening Power

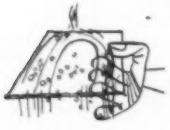
Sequestering action refers simply to the ability to inactivate calcium and magnesium ions in solution—rendering them inactive. Actually, TSPP combines with the calcium and magnesium ions present in hard water. It forms complexes with these ions—these complexes remain soluble in water but will not react with other substances to form insoluble precipitates. It is this property that eliminates the scum and curd which usually form when soap is used in hard water.

TSPP—and Synergistic Action



Synergism is one of the most unusual and valuable actions that arise when TSPP is used in combination with synthetic detergents. Synergism is a "cooperative" action of two or more separate agencies (TSPP and Santomerse No. 1, for instance) which results in a combined effect that exceeds the average of the two effects taken independently. Example: If Santomerse No. 1, with a detergency of 100%, is combined with TSPP with a detergency of 75%, the resultant detergency of the mixture would supposedly be the average of the two, or 87½%. Actually, it is more—*nearly 110%*.

TSPP—and Peptizing Power



CLEAN RINSE

Another outstanding property of Monsanto TSPP is its "peptizing value"—the ability to keep small particles of solids and oils suspended in a water solution so they will not be redeposited during the cleaning and rinsing cycle.

TSPP—and Alkalinity

The pH of Monsanto TSPP is 10.25 (1% solution at 25° C). Because of this low pH, TSPP can be used in detergent operations where some of the harsher alkalies are prohibited. Naturally, a low pH is also desirable where hands come in contact with a detergent solution.

TSPP—and Stability

Tetra Sodium Pyrophosphate is one of the most stable of the sodium polyphosphate group. It can be depended on to maintain its detergent effectiveness, its sequestering power and synergistic action over long periods of time. In fact, TSPP shows no evidence of reversion in 60 hours at a temperature of 70° C, a temperature somewhat higher than that at which most washing operations are conducted.

TSPP—Some Typical Uses

There are far too many uses for TSPP—workhorse of the polyphosphate group—to include a list of all its applications. However, here are a few typical examples:

- Builder for household soaps
- Builder for laundry soaps
- Detergent aid for synthetic detergents
- Dishwashing compounds
- Bottle washing
- Dairy cleaners
- Metal cleaners
- De-inking of paper

PHOSPHORIC ACID

Monsanto supplies phosphoric acid of high purity in concentrations of 75% and 85% H_3PO_4. 75% phosphoric acid is available in tank cars, stainless steel drums, barrels and carboys, and meets Food Grade specifications. 85% phosphoric acid is available in tank cars, stainless steel drums and carboys, and meets N. F. specifications.

TSP — tri sodium phosphate

Tri Sodium Phosphate—commonly referred to as TSP—is another Monsanto product widely used in formulating detergent cleaners for industrial, commercial and household use. It is quickly soluble in water—acts as an excellent water conditioner and softener. Gives an alkaline reaction in solution.

AE-1—Defoaming Agent for Bottle Washing

There's a new Monsanto high-molecular-weight alcohol ester—AE-1—that has definite use possibilities in industrial cleaning. Present indications are that it is valuable in the elimination of foam in certain bottle-washing operations. Details of its application are not as yet available. However, if you are interested in exploring its possibilities, a sample will be sent to you, together with Technical Bulletin No. P-140.

Santomerse: Reg. U. S. Pat. Off.

GET FURTHER INFORMATION

Manufacturers and formulators interested in chemicals for cleaning can secure added information by contacting any Monsanto District Sales Office, or writing direct to MONSANTO CHEMICAL COMPANY, Phosphate Division, 1700 South Second St., St. Louis 4, Mo.

DISTRICT SALES OFFICES: Birmingham, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Los Angeles, New York, Philadelphia, Portland, Ore., San Francisco, Seattle. In Canada, Monsanto Canada Limited, Montreal.

MONSANTO CHEMICALS — PLASTICS

Serving Industry... Which Serves Mankind

MONSANTO CHEMICAL COMPANY
Phosphate Division, 1700 South Second Street
St. Louis 4, Missouri

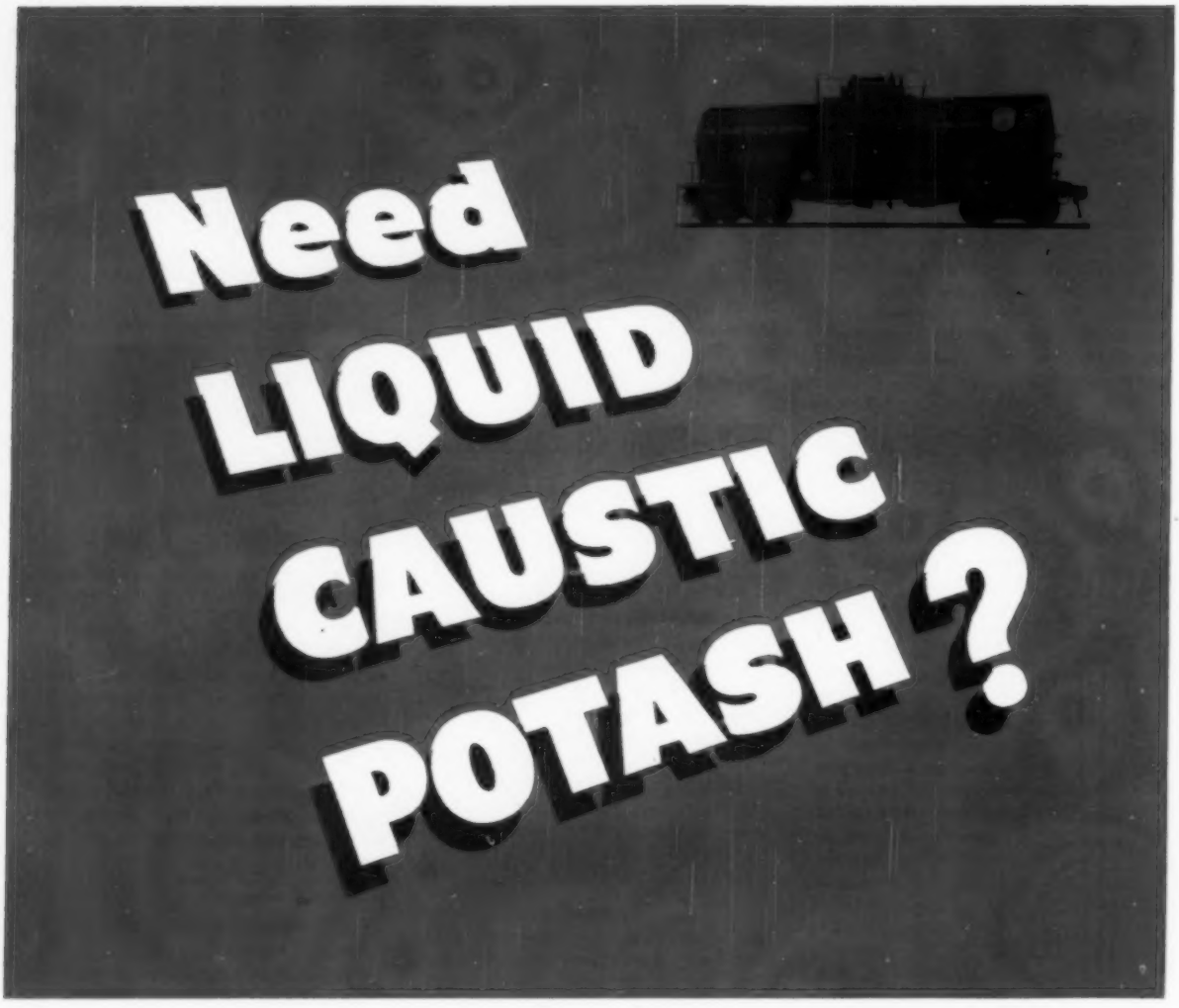
Please send information on the following: ☐ Sodium Tripoly Phosphate, ☐ Tetra Sodium Pyrophosphate, ☐ Phosphoric Acid, ☐ AE-1 Defoaming Agent.

Name.....Title.....

Company.....

Street.....

City.....Zone.....State.....



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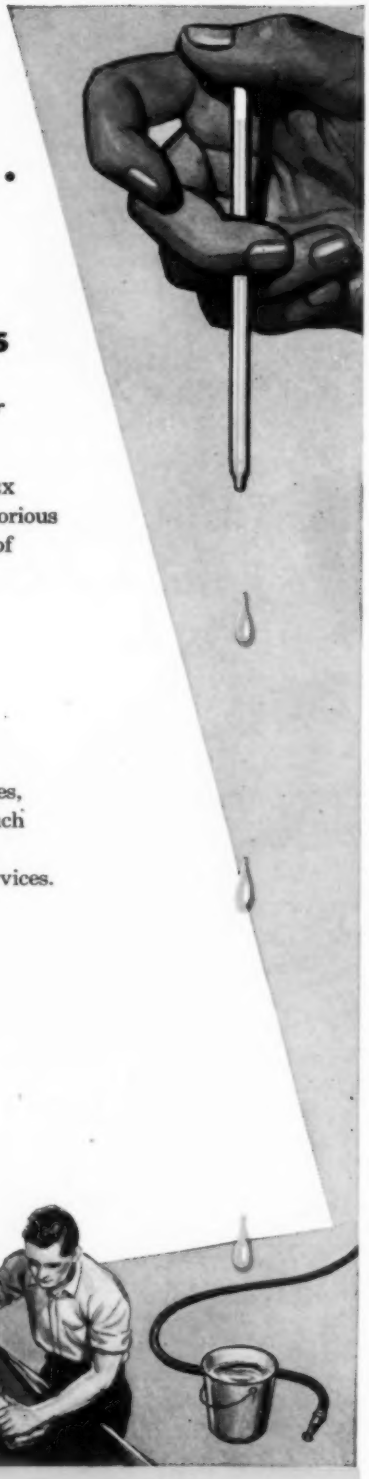

RENEX enables you to produce cleaning compounds tailor-made to *your* market—outstanding automobile cleaners, for example.

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Tetrasodium pyrophosphate	40%
Sodium sesqui-carbonate	47%
Tri-silicate	3%

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Upholds Aerovap Patent

United States Patent 2,541,-637, covering the "Aerovap" method of automatically dispersing lindane for indoor control of flies, mosquitoes and other insects, has been upheld in the U. S. District Court for the Northeastern District of Texas, Dallas Division, it was announced April 1 by Joseph A. Moran, president of American Aerovap, Inc., New York, holder of the patent. The court's decision followed trial and argument in open court of a patent infringement suit brought by American Aerovap, Inc., against the manufacturer, the distributors and some users of the "Lin-Air Vaporizer" (formerly called "Kem-Air Vaporizer").

The judgment restrains the manufacturers, distributors and users of the "Lin-Air" equipment from continuing to practice the infringement in the use of their vaporizer which operates on the same principle as the Aerovap process. The court, through presiding Judge William H. Atwell, ruled that the Aerovap process patent is "good and valid in law and equity." Judge Atwell's judicial opinion stated that the "plaintiff's invention is a commercial success, and that the plaintiff expended a large sum in laboratory research and in the perfection of what it is offering in its patent."

Daumit Advances Gaines

William H. Gaines was named field sales manager for the eastern region of the Kay Daumit Division of Colgate - Palmolive - Peet Co., Jersey City, N. J., with headquarters in New York, it was announced April 7 by Howard P. McClure, sales manager. In his new post, Mr. Gaines manages the sales and promotion of "Lustre-Creme" in the states east of and including Michigan, Indiana, Kentucky, Tennessee, Alabama and Florida. Before joining the Kay Daumit Division in 1947, Mr. Gaines spent a number

W. H. GAINES

of years in both the toilet article division and soap department of Colgate.

Emil Weiss Dies

Emil Weiss, 59, president of the Gulf Soap Corp., St. Bernard parish, New Orleans, died March 23 at Touro Infirmary. A native of Hungary, Mr. Weiss came to this country as a child and lived in New York until 1940. He established tallow manufacturing firms, and in 1940 he moved to Tampa, Fla., to found the Tampa Soap Corp. In 1942 Mr. Weiss moved to New Orleans to establish the Gulf Soap Corp.

Pluronics Prices Cut

A reduction in the price of "Pluronics," nonionic detergents, was recently announced by Wyandotte Chemicals Corp., Wyandotte, Mich. New manufacturing facilities will enable Wyandotte to produce "Pluronics" in quantities permitting their use on a commercial scale, the announcement stated.

Based upon use of polyoxypropylene glycols as the hydrophobic unit, this series of nonionics includes liquid grades of uniform viscosity, "Pluronics L44, L62 and L64," and "Pluronic F68," the latter being first 100 percent active flake nonionic detergent ever commercially produced, according to Wyandotte.

New prices for "Pluronics L44," "L62," and "L64" are 42½ cents per pound in truckloads of drums and 44 cents per pound in single drum quantities. "Pluronic" F68, the solid nonionic in flake form, sells for 48½ cents per pound in truckloads and for 50 cents in single drum quantities.

C.S.M.A. Proceedings

The Proceedings of the 38th annual meeting of the Chemical Specialties Manufacturers Assn. are now available for $7.50 per copy, it was announced early this month. The 143-page book is spiral bound and, in addition to papers presented at the meeting held in Washington, D. C., Dec. 3 and 4, contains a list of C.S.M.A. officers, board of governors, committee members, etc.

Bobrick Elects Officers

At the recent annual meeting of the board of directors of Bobrick Manufacturing Corp., Los Angeles, Arthur L. Bobrick, chairman of the board of directors, announced election of the following officers and board members: A. L. Bobrick, chairman of board; William S. Louchheim, president and treasurer; James E. Pollak, vice-president; Arthur A. Newfield, vice-president; R. E. McRann, secretary and assistant treasurer; James A. Puleo, assistant secretary; Caroline Rehm, assistant secretary and assistant treasurer. Directors are A. L. Bobrick, Wm. S. Louchheim, Arthur A. Newfield, Wesley C. LaFever, and James E. Pollak.

Mr. Bobrick also announced the re-appointment of James E. Puleo, as manager of the Brooklyn, N. Y., factory and warehouse branch.

Arnold A. Cowan was appointed chief engineer of the company. In this capacity he will assist Mr. Bobrick in conducting the research, development, and manufacturing programs of the company.

In his report of the operations of the company Mr. Bobrick said that the quantity of soap dispensers produced and sold by Bobrick in 1951 exceeded that of 1950.

M. L. ANDERSON

JOHN C. HERRON

Join Velsicol Corp.

The appointment of M. L. Anderson as southwestern insecticide sales representative of Velsicol Corp., Chicago, was announced early this month. He comes to Velsicol from Virginia Smelting Co., W. Norfolk, Va., where he was manager of aerosol sales.

A graduate of Univ. of Florida, Mr. Anderson was associated with the Florida State Plant Board prior to his entry into the Navy during World War II. He is making his headquarters in Texas.

Velsicol also announced at the same time, that Dr. John C. Herron has joined the technical sales and service staff. A graduate of Ohio State University, following reception of his degrees there he acted as an instructor in agriculture and entomology at North Carolina State College. He is representing Velsicol in the Chicago area.

C.S.M.A. June Program

Tentative program details for the 38th mid-year meeting of the Chemical Specialties Manufacturers' Assn., being held at the Sheraton Plaza Hotel, Boston, June 8, 9 and 10, were released early this month. Papers, panel discussions and symposiums of the five divisions of which the C.S.M.A. is composed cover such topics as chemical vaporizers for controlling insects, test methods for evaluating germicides, synthetic detergents in bar form, glass container aerosols and the current status of Brazilian waxes by a representative of that country.

Highlighting the general session program is a report on world conditions, both economically and politically, by J. L. Brenn of Huntington Laboratories, Huntington, Ind., Mr. Brenn returned recently from a round-the-world trip which included stops at Hong Kong, Tokyo, Calcutta, Cairo, Turkey, Greece, Spain and Portugal.

Other subjects slated for presentation at the meeting include industrial uses of insecticides (a panel), biosynthesis of radioactive pyrethrins, action of insecticides, new methods of evaluating fungicides, *in vivo* and *in vitro* testing of disinfectants, aerosol products survey, paint aerosols (a symposium), dishwashing detergents, use of metal complexing agents in soaps, etc., new methods for detergency testing, cleaning and maintenance of tile floors, preparation of floors for waxing, wax removal studies, detection of additives in carnauba wax, oleoresinous floor finishes and technical aspects of floor cleaners.

T. Carter Parkinson of McCormick & Co., Baltimore, is general program chairman for the meeting, and is assisted by program chairmen and committees of the five divisions of C.S.M.A.

Pessimistic on Vaporizers

PESSIMISM as to the future of devices for the continuos vaporization of lindane in insect control is expressed in a recent technical bulletin of the National Pest Control Association, New York. The pessimism is based on: 1.) probability of failure of lindane to control flies in many sections of the U. S. in the near future and, 2.) health hazards from general misuse and improper installation of many devices.

The N.P.C.A. bulletin urges its members to require the manufacturer of vaporizing devices to "provide proof that the devices can be operated according to the recommendations of the Interdepartmental Committee on Pest Control" and that pest control operators make every effort to insure proper installation of vaporizing devices.

On the question of failure to control flies, the bulletin points out that reports accumulated during the winter indicate a widespread resistance on the part of flies to lindane and that this "is on the verge of becoming rather generally established." It concludes that such resistance will result in the failure of vaporizing devices to control flies.

Only a narrow margin exists between the rate of insecticide release termed safe by the Interdepartmental Committee on Pest Control and that which may present a health hazard the N.P.C.A. bulletin states in discussing health hazards from product misuse. Continuous and careful control of the output termed safe (one gram per 15,000 cu. ft. per 24 hours) by the Committee is necessary the bulletin points out.

Too many vaporizing devices are not operating within the recommended limits, the N.P.C.A. bulletin states. Too many are releasing more than one gram of lindane per day in spaces smaller than 15,000 cu. ft. and too many are found in homes and areas where human exposure is for periods longer than eight hours per day. These instances constitute a "misuse of the device" and may lead to its "eventual banning."

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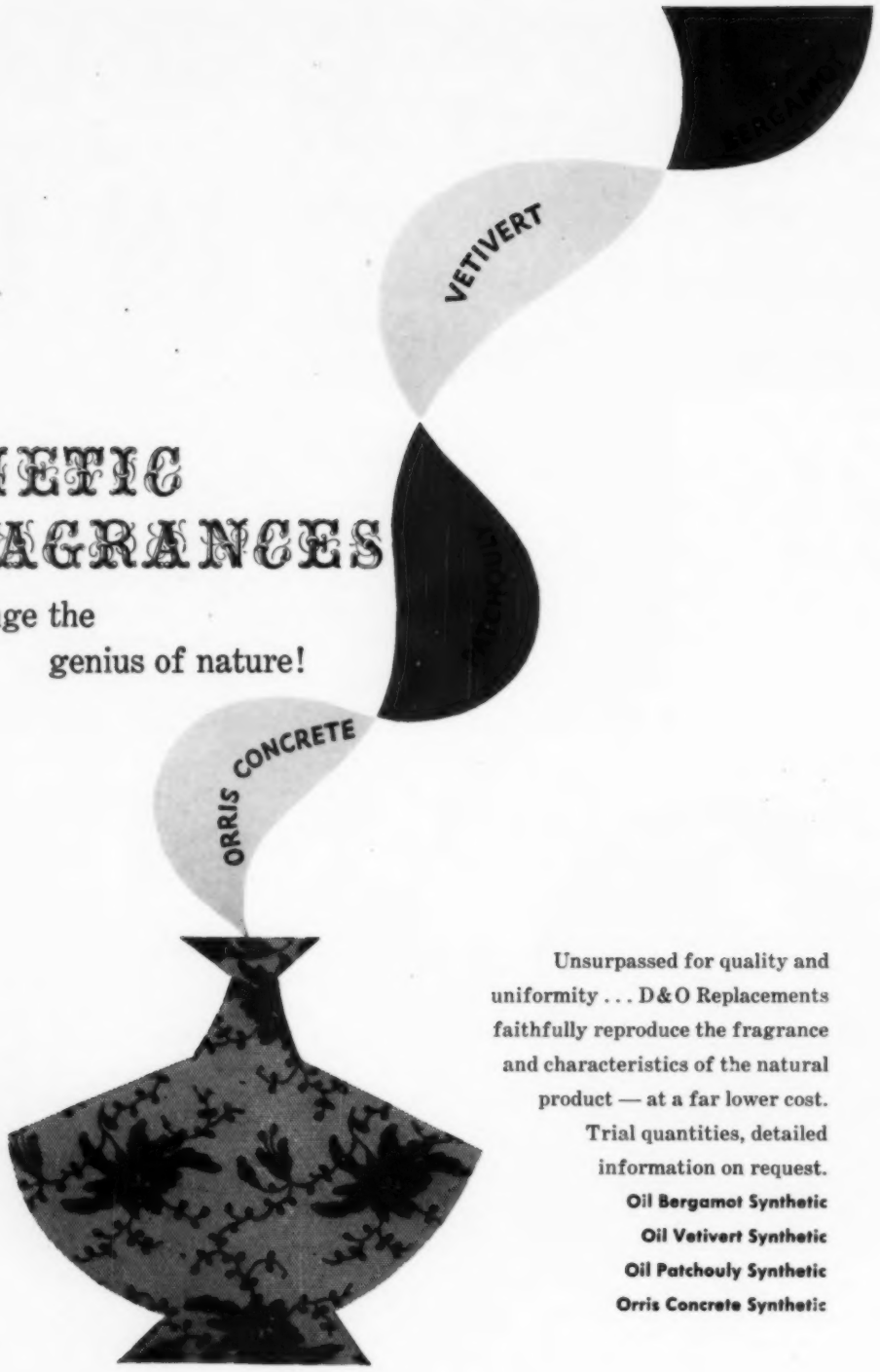
to challenge the genius of nature!



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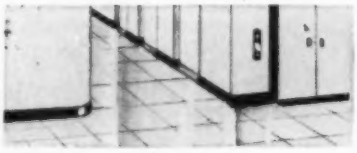

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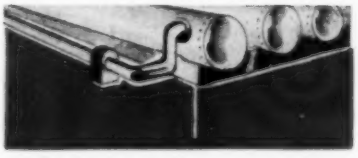

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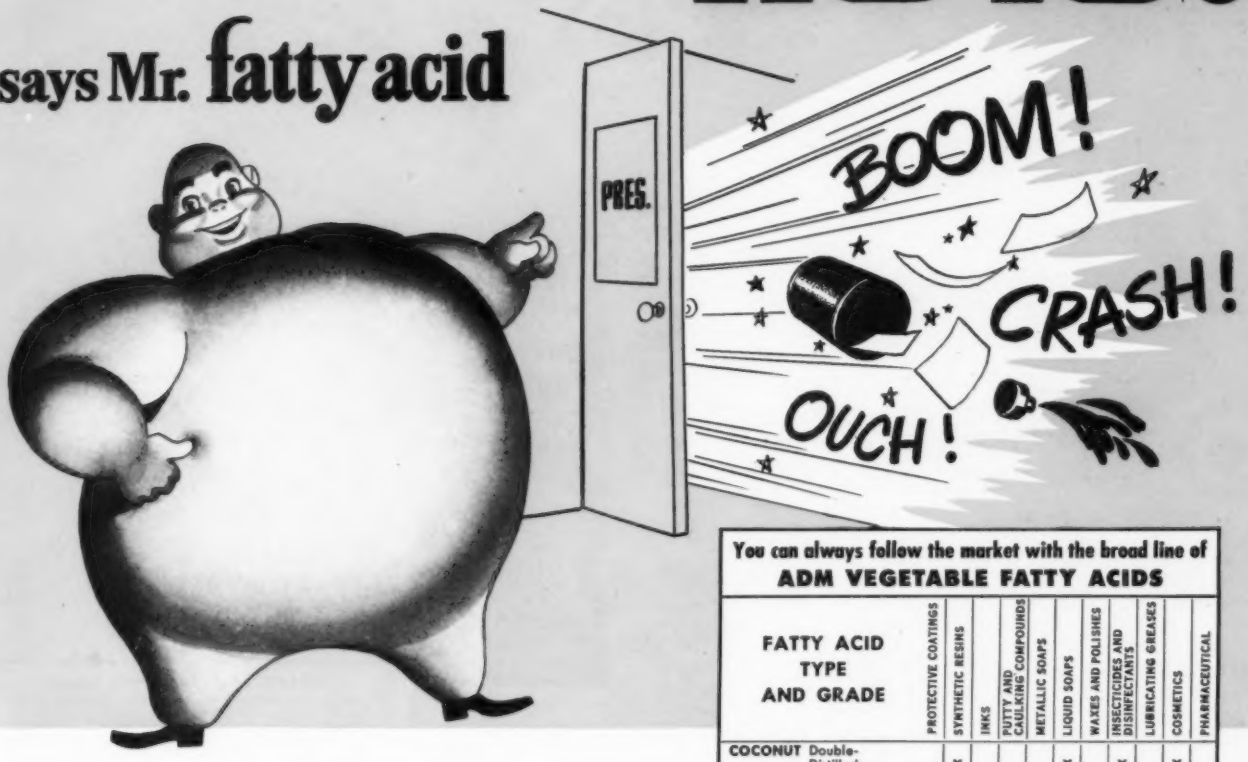

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IODINE NO. (Wijs)	125 Minimum
COLOR (Gardner)	6 Maximum
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LINSEED											
Water White	X	X	X								
Regular	X	X	X	X	X	X		X			
SM-500	X	X	X	X	X	X		X			
SM-600	X	X	X	X	X	X		X			
Essential Unsaturated Free Fatty Acids											X
SOYA											
Water White	X	X	X								
Regular	X	X	X		X	X		X			
RO-4	X	X	X		X	X		X			
RO-10	X	X	X	X	X	X	X	X	X		
RO-11S	X	X	X		X			X			
MIXED VEGETABLE RO-8	X	X		X	X	X	X	X	X		
CORN-SOYA Double-Distilled				X		X	X	X	X		
CORN Double-Distilled				X		X	X	X	X		
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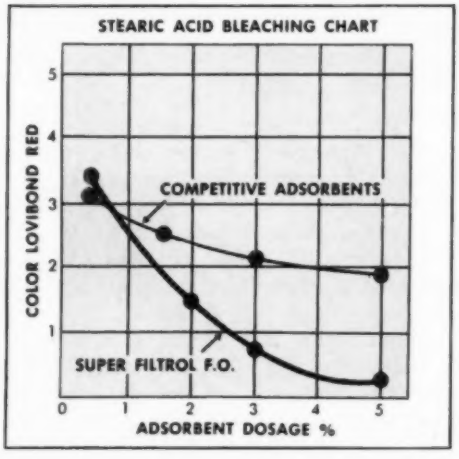
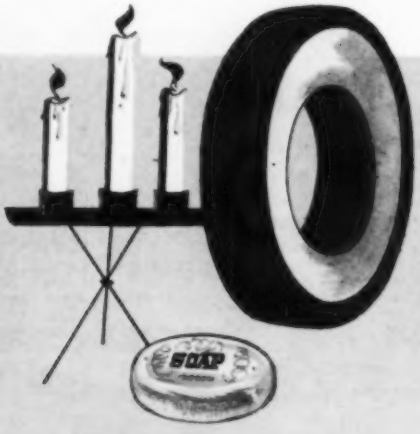
5. Super Filtrol has a faster filtration rate than any competitive adsorbent.

6. Filtrol Corporation offers complete laboratory facilities, trained technicians to assist fatty acid manufacturers with their decolorizing problems.





FILTROL CORPORATION
GENERAL OFFICES:
727 West 7th Street, Los Angeles 17, California
PLANTS:
Vernon, Calif., Jackson, Miss., Salt Lake City, Utah

*T.M. REG. U.S. PAT. OFF.

Gives Stable Small-Bubble Foam

Lots and Lots of it...

THICKENS AQUEOUS SOLUTIONS

Gives you desirable viscosity without use of additives...

EMULSIFIES MOST COMMON OILS

Wets and disperses, too...

CLEANS TEXTILES AND HARD SURFACES

A really superior detergent...

RINSES AND DRAINS READILY

Particularly on dishes and glassware...

ONYXOL 336

The New Non-Ionic Detergent

Here Are a Few Potential Uses...

- Industrial Cleaners
- Shampoos of All Kinds
- Bubble Bath Salts
- Buffing and Polishing Compounds
- Cosmetics
- Wettable Sulfur
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- Liquid Detergents... Household

onyx

ONYX OIL & CHEMICAL COMPANY
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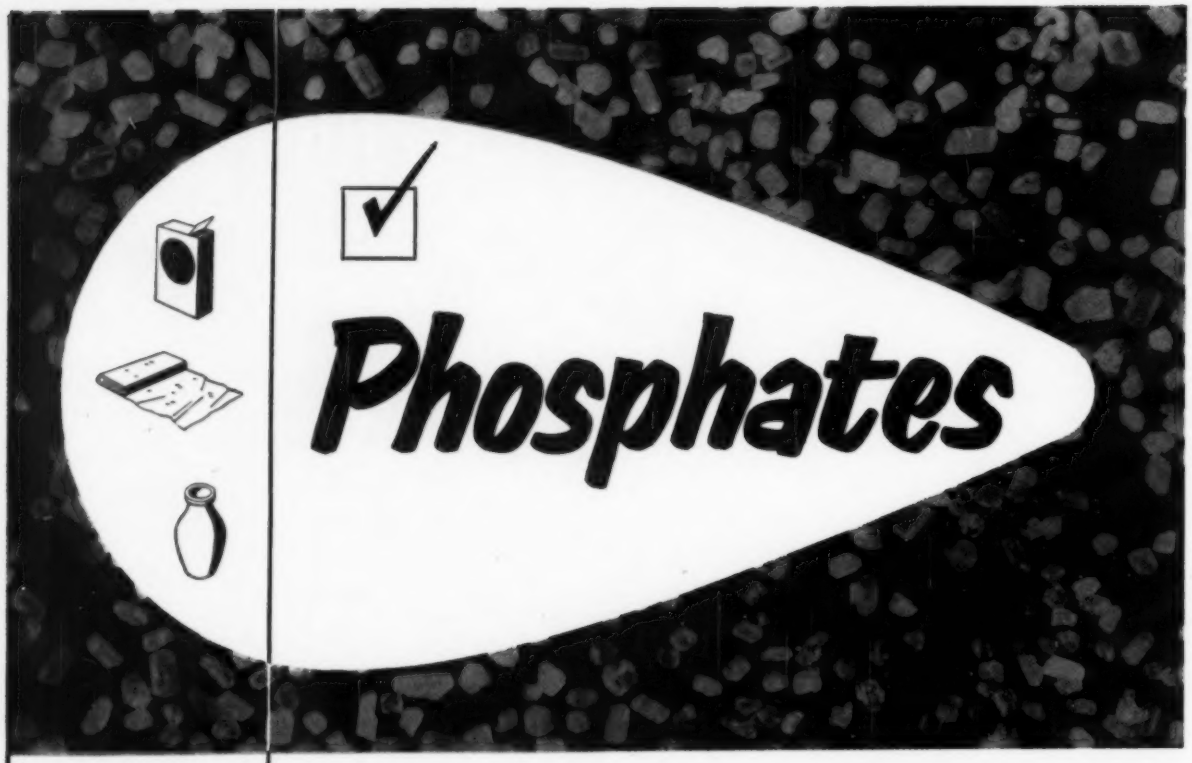
In Canada: Onyx Oil & Chemical Co., Ltd., Montreal, Toronto, St. Johns, Que. For Export: Onyx International, Jersey City 2, N. J.
West Coast Representative: E. S. Browning Co., San Francisco, Los Angeles



BASIC CHEMICALS

FOR AMERICAN INDUSTRY

✓ Check with GENERAL CHEMICAL

Wherever phosphates are used, General Chemical's products are preferred for their uniformity and their consistent high quality. That's because they have been developed out of a continuing research and quality control program which results in materials ever abreast of industry's newest needs.

Wherever your plants are located, you will find General can serve you well through its coast-to-coast chain of distributing stations.

PRODUCT	GRADE	PACKING
TRISODIUM PHOSPHATE $Na_3PO_4 \cdot 12\ H_2O$ (TSP)	Flake Coarse Medium Standard Fines	Multiwall paper bags, net wt. 100 lbs. Fiber drums, net wt. 100 lbs.; 375 lbs. Bulk car shipments
DISODIUM PHOSPHATE, Anhydrous Na_2HPO_4	Flake	Multiwall paper bags, net wt. 100 lbs. Fiber drums, net wt. 100 lbs.; 280 lbs.
	Powdered	Multiwall paper bags, net wt. 100 lbs. Fiber drums, net wt. 100 lbs.; 400 lbs.
SODIUM TRIPOLYPHOSPHATE, Anhydrous $Na_5P_3O_{10}$	Powdered Granular	Multiwall paper bags, net wt. 100 lbs. Fiber drums, net wt. 400 lbs. Bulk car shipments
TETRASODIUM PYROPHOSPHATE, Anhydrous $Na_4P_2O_7$ (TSPP) (Pyro)	Powdered	Multiwall paper bags, net wt. 100 lbs. Fiber drums, net wt. 100 lbs.; 400 lbs.
	Granular Diamond	Multiwall paper bags, net wt. 100 lbs. Fiber drums, net wt. 100 lbs.; 350 lbs. Bulk car shipments

For further information on General Chemical Phosphates, consult the nearest Company office serving you.

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ALLIED CHEMICAL & DYE CORPORATION

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D.Y
QUALITY
SINCE 1844

Hotels . . . Restaurants . . . Stores . . . Apartments . . . Schools . . . Office Buildings . . . Hospitals . . . Theatres . . . Institutions . . . Churches . . . and all commercial, residential and industrial buildings

They are All Your PROSPECTS for Buckeye "SYND"

the concentrated, neutral synthetic detergent cleaning compound

tap this ACTIVE market...

You'll get a BIG Volume of Business and Steady, profitable Repeat Sales!

Buckeye "SYND"...

works wonders on *ALL* floors, walls, woodwork . . . develops a clean, fresh odor

Buckeye "SYND" is the latest development from the DAVIES-YOUNG laboratories. It's a powerful liquid detergent that cleans quickly, thoroughly, safely and economically . . . actually dissolves dirt and soil. A trial will AMAZE your customers . . . you'll do them a big favor when you demonstrate and sell "SYND" for all cleaning jobs!

Get all the facts NOW!

Learn all about "SYND"—see how easy it is to sell—and then watch how fast and *regularly* the steady repeat orders come rolling in. "SYND" is a natural profit-maker because it so *completely* fills every cleaning need.

send the coupon in at once—
try "SYND"—prove it for yourself!

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The **DAVIES-YOUNG** Soap Co.
Dayton 1, Ohio

Clip Coupon . . . Mail at Once

FREE OFFER

THE DAVIES-YOUNG SOAP COMPANY
BOX 995, DAYTON 1, OHIO

Yes! We are interested in the sales and profit-possibilities of "SYND." Rush samples and literature today.

SSC 4-52

Firm Name_____

Address_____

City_____ Zone____ State_____

DRYMET*

THE ECONOMICAL DETERGENT SILICATE

Cowles DRYMET, anhydrous sodium metasilicate, is the most highly concentrated form of sodium metasilicate available. One pound of DRYMET is equivalent to 1.6 lbs. of sodium metasilicate pentahydrate. DRYMET contains no water of crystallization. It is more economical to use, on the basis of both Na_2O (alkalinity) and SiO_2 (silicate), than any other type of hydrated or anhydrous detergent silicate, either compounded or by itself.

*Reg. U. S. Pat. Off.

DRYMET
IS USED IN COMPOUNDING SUCH PRODUCTS AS:

1. Floor Cleaners
2. Laundry Products
3. Metal Cleaners
4. Dairy Cleaners
5. Dishwashing Compounds
6. General Purpose Cleaners
7. Soap Builders
8. Paint Cleaners
9. Paper De-Inking Compounds
10. Household Cleaners

DRYMET
HAS THE FOLLOWING ADVANTAGES:

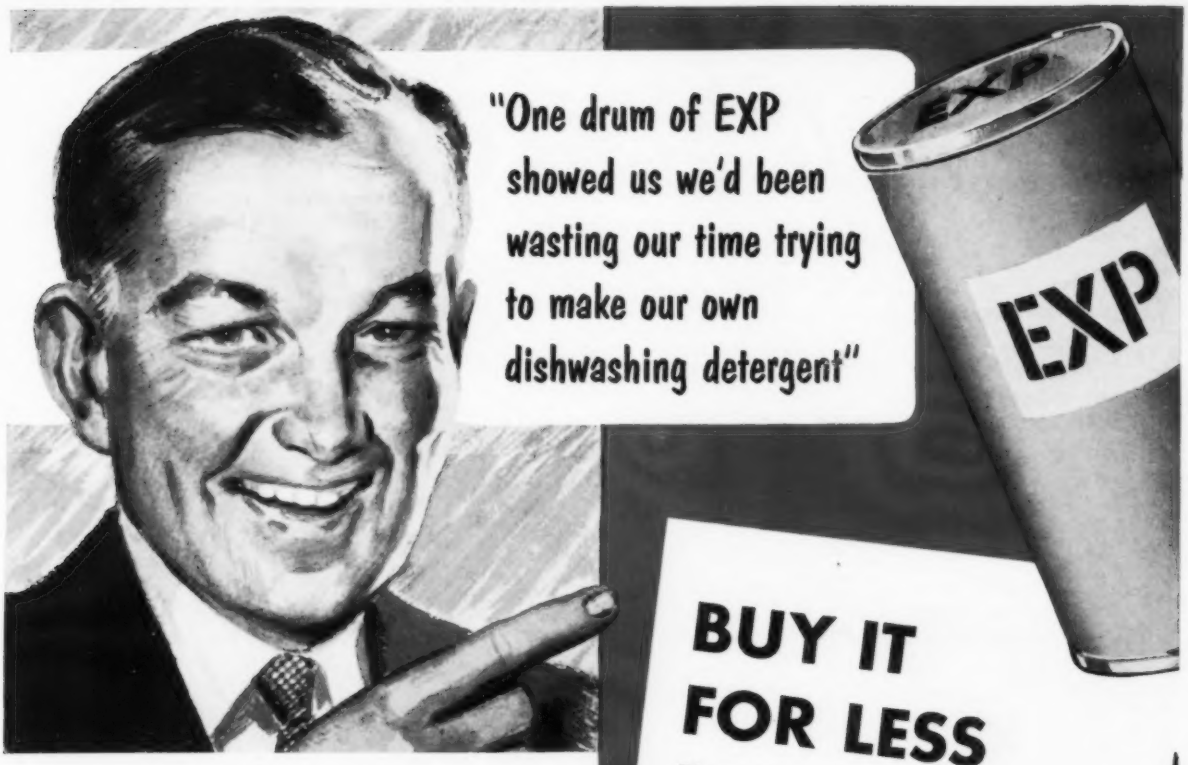
1. Reinforces "wetting-out" action
2. Lowers surface tension of water
3. Resists rapid exhaustion of cleaning solution
4. Improves and stabilizes emulsifying and deflocculating power of solution
5. Resists changes in pH because it is a "buffered" alkali.

We'll be glad to send you our DRYMET File Folder containing complete technical information and suggested formulations.

HEAVY CHEMICAL DEPT.

COWLES CHEMICAL COMPANY

7016 Euclid Avenue • Cleveland 3, Ohio



If you formulate a dishwashing detergent, check your costs against the delivered price of EXP. Many have found it more economical to use EXP rather than to try to develop a detergent of comparable quality.

With EXP you have a proved product. It's the largest selling, high-lathering hand dishwashing detergent sold commercially. And it's available for your own label. You and your customers will like EXP's advantages:

1. **Higher sudsing**
2. **Amazing grease-cutting action**
3. **Easy on the hands**
4. **Uniform quality always through laboratory control.**

Millions of pounds of EXP are sold every year at a nice profit to dealers. Let it prove itself with a trial order. Use coupon for 125-lb. drum at the lower pound price of a 325-lb. order.

BUY IT FOR LESS

Than it would cost you to make it!

EXP

High-lathering Detergent for hand dishwashing

Available in 25-lb., 50-lb., 125-lb., and 325-lb. sizes.

Also available in 5-lb. packages under the brand label PEPCO No. 463. Packed eight 5-lbs. to case.

Peck's

PRODUCTS COMPANY
610 E. Clarence, St. Louis 16, Mo.
Manufacturers of Soaps, Detergents, Sanitary Chemicals

SPECIAL TRIAL ORDER

MAIL COUPON NOW

PECK'S PRODUCTS CO.
610 E. Clarence, St. Louis 16, Mo.

Ship 125-lb. drum of EXP. Bill at special price—same price per pound as on 325-lb. order.

NAME_____

FIRM_____

STREET_____

CITY AND ZONE_____ STATE_____

Triple Victory

IN MACAULAY'S FAMOUS POEM, Horatius stood before the narrow bridge to Rome and saved the city by slaying Lars Porsena's three ablest warriors.

Now, no one's going to write poetry about IONOL® . . . . the antioxidant that is proving so successful in essential oils manufacture . . . but there *is* a parallel!

IONOL is a determined fighter against color or odor changes due to oxidation. This tri-substituted hindered phenol maintains the stability of animal, vegetable and mineral oils—safeguards the purity of essential oil and fatty acid products.

And a little IONOL goes a long way . . . less than one per cent increases oxidation induction periods *by as much as 275 hours.*

While the demand for IONOL currently exceeds production capacity, it will pay you to give serious consideration to its advantages in your product development planning.

IONOL IS ALREADY IMPROVING THESE:
Pressure sensitive tape • Asphalt and rubber tiles
Drug sundries • Rubber coatings for wire
Light-colored extruded specialties
Swimming accessories • Play shoes

SHELL CHEMICAL CORPORATION
CHEMICAL PARTNER OF INDUSTRY AND AGRICULTURE
Eastern Division: 500 Fifth Avenue, New York 36, N. Y.
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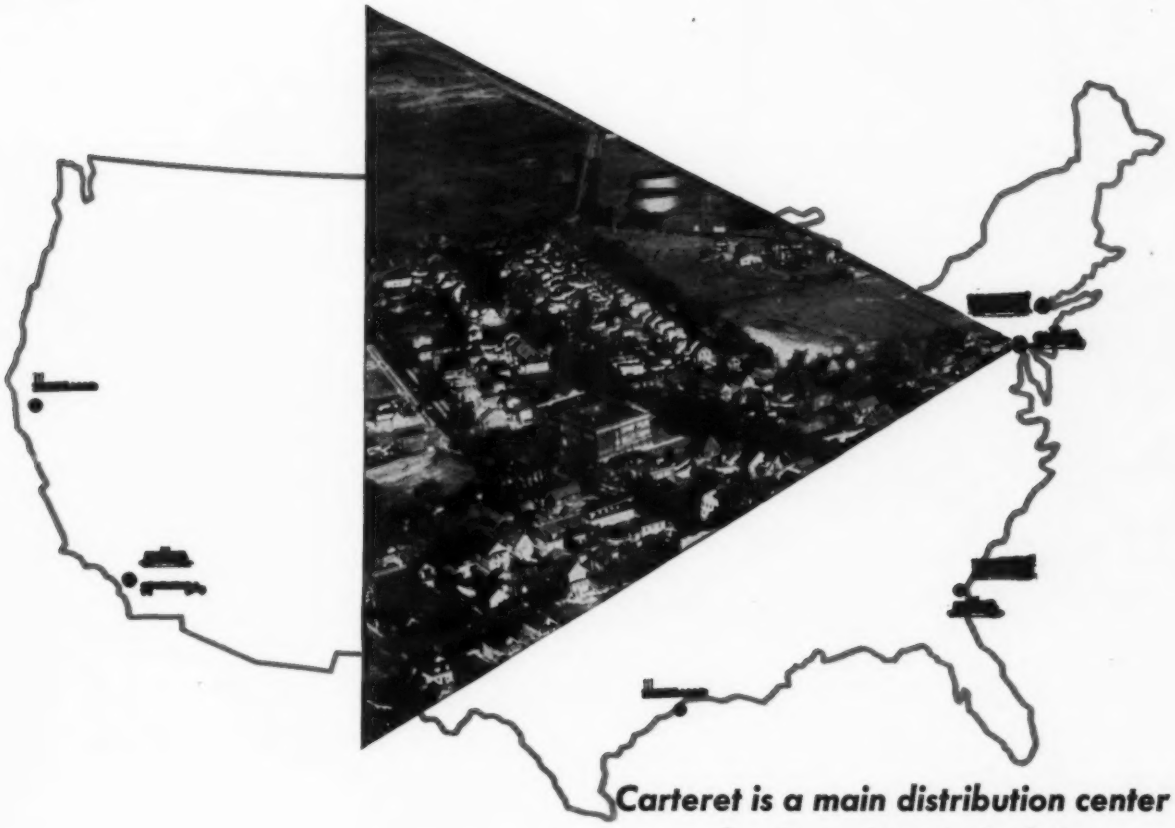
How close are you to Carteret, N.J.?



Carteret is a main distribution center for Dow Caustic Soda!

Dow's distribution facilities are conveniently located to serve you with dependable caustic soda delivery! Dow caustic soda solution is shipped from bulk tank terminals in Los Angeles, California; Carteret, New Jersey and Charleston, South Carolina. Caustic soda solid, flake and ground flake are shipped from terminals in Port Newark, New Jersey; Chicago, Illinois and Charleston, South Carolina. Dow caustic soda production is shipped to these distribution centers from three large plants—in Michigan, Texas and California. For superior service and nationwide distribution facilities . . . look to Dow for dependable caustic soda delivery!

wherever you are... *you're close to*

DOW CAUSTIC SODA

THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN

New York • Boston • Philadelphia • Atlanta • Cleveland • Detroit
Chicago • St. Louis • Houston • San Francisco • Los Angeles • Seattle
Dow Chemical of Canada, Limited, Toronto 1, Canada

DOW
CHEMICALS
INDISPENSABLE TO INDUSTRY AND AGRICULTURE

Always

SUPPLIED AS SPECIFIED!

There's no question about the dependable high quality of W. C. Hardesty Co., Inc. Stearic and other Fatty Acids ...standardized to give the same end result–every time.

HARDESTY PRODUCTS

RED OIL
STEARIC ACID
HYDROGENATED FATTY ACIDS
ANIMAL AND VEGETABLE FATTY ACIDS
GLYCERINE
WHITE OLEINE
STEARINE PITCH

W. C. HARDESTY CO., INC.

41 EAST 42nd STREET, NEW YORK 17, N. Y.

PLANT: DOVER, OHIO

IN CANADA: W. C. HARDESTY CO., INC. OF CANADA LTD., TORONTO

for car washing compounds

there's nothing like

Nacconol*

AMERICA'S LEADING SYNTHETIC DETERGENT

To wash 'em fast and leave 'em spotless, your car-wash mixtures need "the balanced detergent" — NACCONOL. Just a little NACCONOL goes a long way to make your mixtures work faster and better... to make them sell faster and show more profit, too!

NACCONOL makes water wetter; boosts the cleaning power of phosphates and alkalis; cuts through and emulsifies greasy dirt; keeps it in suspension. And best of all, NACCONOL solutions rinse away quickly and completely with never a spot or a streak on the finished surfaces.

You can't buy a better, low-cost detergent for car washes or any other heavy-duty compound. And you can't have a more dependable supplier than the oldest mass-production manufacturer of synthetic detergents. So write or phone our nearest office for prices, delivery and technical help on the use of NACCONOL in your mixtures.

NATIONAL ANILINE DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET, NEW YORK 6, N.Y. • BOwling Green 9-2240

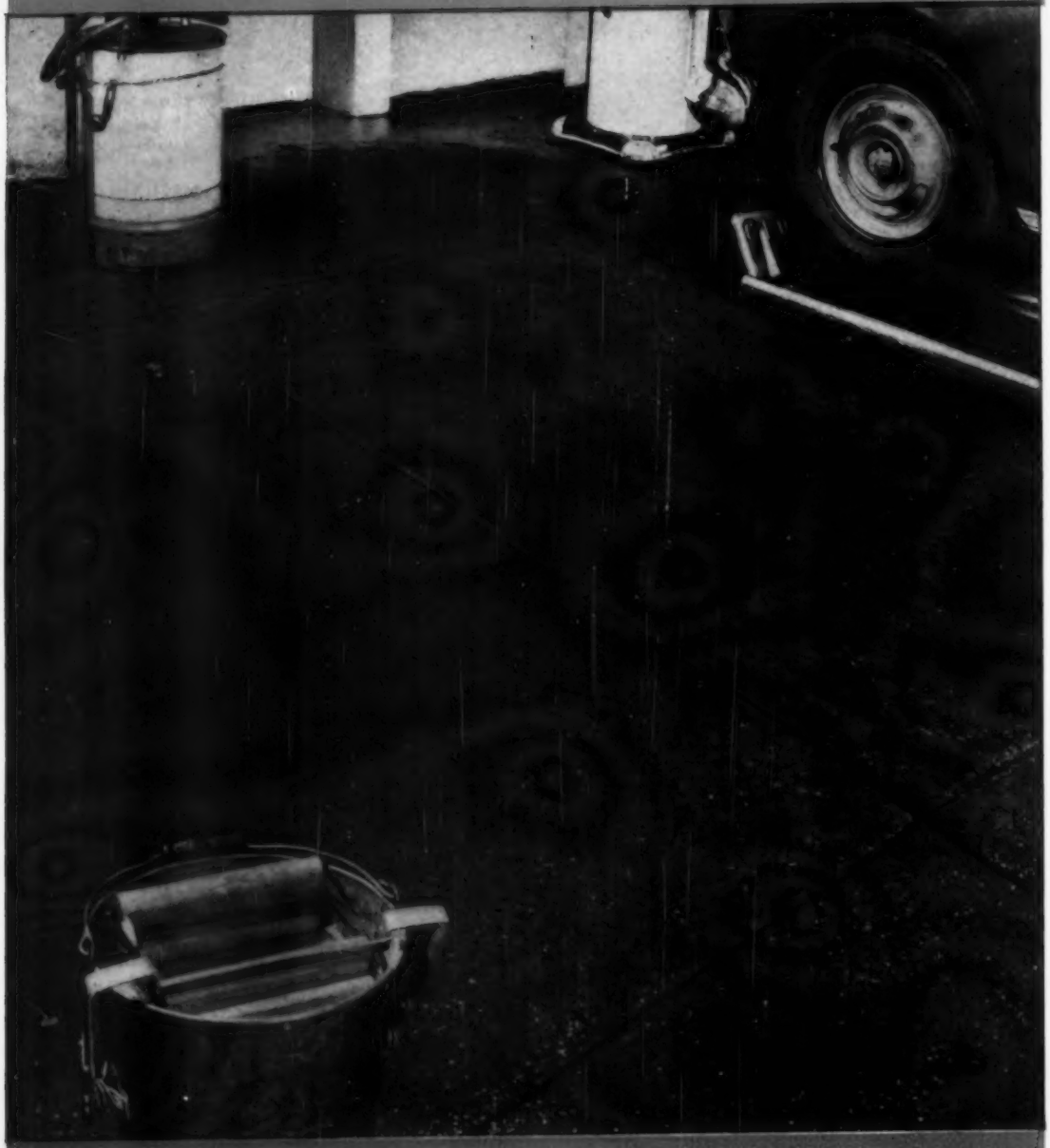
Boston 14, Mass., 150 Causeway St.	CApitol 7-0490	Richmond 19, Va., 8 North Fifth St.	Richmond 2-1938
Providence 3, R.I., 15 Westminster St.	DExter 1-3008	Columbus, Ga., Columbus Interstate Bldg.	Columbus 3-1029
Philadelphia 6, Pa., 200-204 S. Front St.	LOmbard 3-6382	Greensboro, N.C., Jefferson Standard Bldg.	GReensboro 2-2518
San Francisco 5, Cal., 517 Howard St.	SUtter 1-7507	Chattanooga 2, Tenn., James Building	CHattanooga 6-6347
Portland 9, Ore., 730 West Burnside St.	Beacon 1853	Atlanta 2, Ga., 254 E. Paces Ferry Rd.	EXChange 3594
Chicago 54, Ill., The Merchandise Mart	SUperior 7-3387	New Orleans 18, La., 714 Carondelet Bldg.	Raymond 7228
Charlotte 1, N.C., 301-303 West First St.	CHarlotte 3-9221	Toronto 2, Canada, 137-143 Wellington St. W.	Empire 4-6495

*Reg U.S. Pat Off

PINE OIL

for soaps, cleaning compounds, disinfectants

SMELLS CLEAN...CLEANS CLEAN



HERCULES POWDER COMPANY Naval Stores Dept., 961 Market St., Wilmington, Del.

NC52-1

. . . in brief

as the editor sees it

PLANT CAPACITY . . . Whenever soap demand drops off, the opinion is heard with increasing frequency that the industry's plant capacity has expanded too far for comfort beyond normal requirements. Back in late 1950 when every kettle in every soap factory was working at capacity, little was heard or thought about excess soap plant potential. But, it's different now. Sales are off again and kettles are down. And if there is anything emptier than an empty soap kettle, we've never seen it. A most depressing and convincing piece of evidence that we can make more soap than we can sell!

In past years, the ups-and-downs of soap production followed normal variations in the economic scene, but seldom with the thought that some day production might go down and stay down. Yet, that obviously is what lies behind some of the thinking in and about the soap industry today. In 1951, synthetic detergents took over about 25 per cent of the "soap" market. In 1952, some predictions indicate that this could be 35 or 40 per cent. By 1955 or 1960, where will our soap plants fit into the picture? Our answer would not be very reassuring,—but then maybe we too have been peering down into too many empty soap kettles of late.

BETTER SELLING, BUT . . . The six-sided discussion which we presented last month on selling sanitary supplies,—whether through jobbers or by manufacturers direct,—has brought some noteworthy reactions. The gist of this is that such selling is far better organized and more effective than we give it credit for being. Furthermore, it has improved greatly over the past decade and continues to get better at a rapid rate. And, accordingly, the need for manufacturers to circumvent the jobber, and go direct to the consumer, grows less with each passing month.

That there are those who do not subscribe to this general view goes without saying. Some manufacturers still stick to their guns that good jobbers are too few and that the percentage of fly-by-nights and plain gyps has got to be reduced even further before their faith will be regained. Many of the old-line jobbers express exactly the same view and do not seem to have too high a regard for the majority of their fellows. Both groups appear to agree that selling standards have improved greatly,—but, do not fail to add the closing shot that there is still much room for further improvement.

INSECTICIDE VAPORIZERS . . . A recent bulletin by the National Pest Control Association on the drawbacks of continuous lindane vaporization devices for insect control has initiated considerable controversy. NPCA pessimism is based on probability of lindane failure in fly control in the near future and the health hazards of misuse, improper installation, and faulty operation of some of the devices. NPCA admits that it has many confirmed reports of the effectiveness of these devices for control of flies and mosquitoes in the past.

We are inclined to feel that NPCA may be crossing the bridge before they get to it. If fly strains develop in some localities which are immune to lindane as in the case of DDT, we do not believe that it follows that the vaporization devices in themselves are ineffective. In spite of some DDT insect immunity, large tonnages of DDT still find very useful application. As for

health hazards, we feel this is a matter of the individual device properly installed and regulated,—no more a hazard than a steam boiler with a properly functioning safety valve. We agree with NPCA's recommendation of caution, but believe that their pessimistic approach could cause undue fear and scare potential users away from a very useful insect control device.

SHAMPOO MENACE . . . Shampoo makers are keeping one eye cocked on these new short hair-cuts for ladies. For the fellows who eat regularly via selling shampoo, the new hair styles may or may not have advantages. With hair-cuts like the boys from Princeton or like poodles, the argument goes that the females may wash their tresses more often, but they certainly will not use as much shampoo per wash. And, then, what happens if they don't wash their hair more often? That's what the shampoo fellows are wondering about. The short hair craze, poodle style or otherwise, introduces an element of danger, — and we know of no shampoo maker who enjoys living dangerously in this respect. They all prefer to sell shampoo, and lots of it. So, when the columnist, Robert Ruark, recently blasted both barrels at these new female hair-cuts in the Scripps-Howard papers, we imagine that most shampoo sellers tabbed him as a pal right off the bat.

COCONUT OIL TAX . . . Organized labor is urging Congress to remove the three-cent processing tax on coconut oil. Why? For the very pointed reason that the tax is costing jobs in the American copra crushing, oil refining, and soap industries. Accordingly the CIO, specifically Local No. 1 of the United Chemical Workers is backing actively H.R. 6292, introduced by Rep. Franck Havenner of California to eliminate the coconut oil tax.

Behind this move lies the decline in soap consumption and the upsurge in synthetic detergents which the CIO states began during World War II when coconut oil supplies were cut off. Synthetics obtained their real foothold in the U. S. when free-lathering coconut oil soaps were unobtainable, the union contends, even though they have been made and marketed here since 1930. Most copra mills on both coasts are shut down due to declining copra imports. Coconut oil use in soap is held to a minimum because of its high cost of which the three-cent tax is a significant part.

Soaps with an adequate content of coconut oil are the only ones capable of competing with synthetics for most detergent purposes, especially in the large household market. But high-cost coconut means less and less of the oil can be used. Likewise, for every pound of coconut oil *not* used, four pounds of tallow or grease also fail to find a market. So, with the CIO members, the elimination of this tax is synonymous with keeping their jobs. Hence, when they urge all soapers to wire their congressmen to support H.R. 6292, their appeal should strike a responsive note.

INSECT ADVICE . . . In the April issue, *Reader's Digest* ran an article on "How to get rid of household insect pests." This was not so much a recommendation of any particular brands of insecticides as it was a suggestion on basic materials, DDT, pyrethrum, and particularly chlordane. On the whole, the report was well done and the recommendations technically sound. But, the final paragraph of the report was contradictory and could be misleading.

The report stated: "Brand name pesticides are usually a small quantity of insect killer mixed with a large quantity of inert matter. It is best, therefore, to buy not by brand but by contents." In previous paragraphs, the author himself warned against using products which contain more than 2% chlordane or 5% DDT. If this advice were followed, of what can the balance of the products consist if not 95-98% inert matter or oil? Aren't *all* household insecticides, brand or no brand, in effect exactly what the author describes above? So, why the obvious inference that brand name pesticides usually are weak or adulterated when such is not the case? If there is a safer way for the public to buy insecticides than by established brand name, we would like to know what it is.

as the reader sees it . . .

Direct Sales vs. Jobber

Editor:

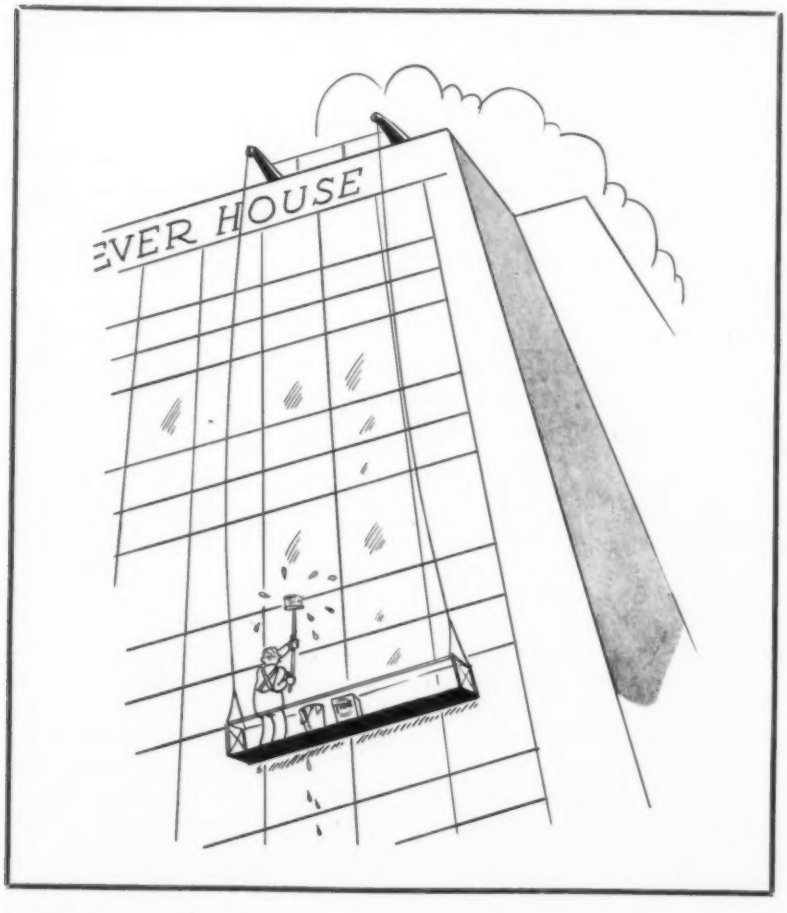
I have read with interest the article, "Sanitary Supplies—Sell Direct or Through Jobers?" in your March issue. It is my belief that this article appeared at a very appropriate time. I do not believe that it is the general trend for the larger manufacturers who are accustomed to distributing their products through the jobbers to reverse their entire sales procedure. The trend to sell more merchandise with better trained salesmen and a sales organization backed by specialty salesmen furnished by the manufacturer is adding new life blood to present selling methods.

I believe that the trend toward better merchandising which has been brought on by the possibility of direct sales by the large manufacturer has made the jobber more alert and caused him to be better prepared for a more effective sales program. I believe that all of this was brought about by the manufacturer having increased his capacities for production, making it necessary to find outlets for more merchandise. Any movement that stirs up new ideas and tends to improve sales promotional programs creates a healthy condition. I feel that the present trend is good for the industry. I do believe that this article could have been a little more pointed, for the new trend has progressed further than is brought out in the article.

Lacy E. Crain, President,
Conco Chemical Co.,
Dallas, Texas.

* * *

As a recognized authority on sanitary supply selling, Lacy Crain's comment that "the new trend has progressed farther than is brought out," is quite significant. Maybe selling programs have progressed farther than we suspected.—Ed.



Airwick Patents

Editor:

Could you advise us with reference to the fact regarding the various patents and pending patents which have been issued to Airkem, proprietors of "Airwick" deodorizers, which are held in your country as well as in ours? We understand that there are various types of air deodorizers including the formaldehyde type on the market in your country, and these are naturally perfumed with various synthetic ingredients. We have been told that Airkem claim in one of their pending patents the sole rights for marketing deodorizers containing aryl substances of hydrocarbon values of C_6-C_{20} with formaldehyde in solution, or hydrocarbons by themselves. Does this mean that all other manufacturers handle their deodorizers under license or is the Airkem patent invalid? How can a patent possibly be granted when all the synthetic perfumes are in the range of C_6-C_{20}?

Perec Limited
London, England.

* * *

Among our readers, some may care to comment upon the questions raised here or may wish to communicate directly with Perec Limited whose address is 42 Eastcastle St., London, W.1. Comment on the much-discussed Airwick patents to date probably could fill several volumes, not including sidelights on the present chlorophyll boom which was apparently seeded originally by the first Airwick patent.—Ed.

Soap Sales Promotion

Editor:

You are to be commended on your editorial in the March issue on soap advertising. Soapers literally are bashing their brains in . . . they may call it "healthy" competition, but I call it frightful internecine warfare with a capital "I". The March 17

issue of "Advertising Age" listed the 100 largest advertisers according to rank . . . three soapers in the first five. It's just a crime that with more money being spent on soap advertising than any other commodity in the country, a more effective use of the money isn't being made towards betterment of the industry!

I get around the country quite a bit and I can tell you for fact that most soap advertising is held in contempt by both the trade and consumers alike. Once again, it's not the brilliance of the advertising that moves tons of merchandise, but the sheer power and volume of it. Besides, people do have to use soap! . . . Although it is nauseously typical of soap advertising, I have yet to see a Buick ad, for example, say in bold headlines: "Don't buy a Chrysler for their brakes are lousy and you're apt to get killed if you drive one."

Just today, one of our salesmen came in with 18 packets of soap coupons of well-known brand which he picked out of the wastebasket in a nearby suburban postoffice. Obviously, the women of America have become so surfeited with soap coupons that they have become a standing joke. Recently, I heard several top-ranking grocery store executives say that they are getting so fed up on coupons that they had instructed store managers to cash them in on anything and everything.

M. B.
Philadelphia.

* * *

Something of a strong indictment of soap sales promotion. We are sorry that the writer requested that his name not appear for it would add the authority of position and long experience to his comments. As for cashing coupons for non-soap merchandise, we know it is common practice. We have done it as a test and have seen it done on numerous occasions. —Ed.

—— • ——

Insecticidal Paint

Editor:

The insecticide that is going to put all of us in the insecticide industry out of business is advertised on the back cover of the enclosed journal.

Friar Thompson, Jr.
Prentiss Drug & Chemical Co.
New York

* * *

The product which we shall not name here is advertised in a recent issue of "Dairyland News," published in Milwaukee. Surfaces painted with this insecticidal product are stated to be harmless to humans and animals and the advertisement says it will continue its insect killing effect for years and does not lose effectiveness when washed with water and detergent. A photo of a horse barn in the advertisement shows a sign which states "the paint that kills flies, spiders, and bugs of all kinds that touch it, for periods up to five years." It is recommended for use in food plants, dairies, hotels, schools, restaurants, etc. Nothing is mentioned specifically about dairy barns.—Ed.

—— • ——

Jobber Adulteration

Editor:

Your article on manufacturers selling direct or through jobbers (S & SC, March, 1952) brings out several important points in merchandising of sanitary chemicals and soaps. However, the writer fails to mention one serious danger in selling through jobbers which every manufacturer has probably run into in the course of his experience. That is the crooked and unscrupulous reseller who takes the manufacturer's product and adulterates it, and then blames the shortcomings of the weakened product on its maker. . . .

Not only are these jobbers cheating the customer and injuring the reputation of the manufacturer, but they undermine their own business and the whole industry so they can make a quick dollar. . . . This goes on right along and is more prevalent than you may think . . . empty containers with the manufacturer's label are taken back for credit and refilled.

In one case, a manufacturer checked up and found that a user bought 30 gallons of a certain product from a jobber who had only purchased half of this quantity from the manufacturer. The jobber was picking up empty containers with original labels all over, and reusing them. . . . This is something which all manufacturers have to contend with and may be another reason why more of them are talking about selling direct all the time.

H. N. B.
Chicago.

* * *

The problem is as old as the hills and a tough one to solve without a staff of detectives and policemen. That education among consumers basically is the answer, we have little doubt, but it is a long and tough row to hoe under our present selling set-up.—Ed.

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Quartermaster Purchases

Over two and one-half million pounds of GI soap were purchased during one recent week by the New York Quartermaster Procurement Agency for use by the armed forces. The following awards were made: Fels & Co., Philadelphia, 1,000,020 bars, $.044, domestic pack, f.o.b. origin $.04712, export pack, f.o.b. origin; Colgate-Palmolive-Peet Co., Jersey City, N. J., 1,207,440 bars, $.0524, domestic pack delivered at various destinations; Haskins Brothers & Co., Omaha, Neb., 402,420 bars, $.0595, export pack delivered at various destinations.

During the past 15 months approximately 135,000,000 pounds of soaps of various types were purchased by the New York Quartermaster Procurement Agency. This was in addition to several million pounds of detergents.

The New York Quartermaster Procurement Agency has worked closely with the soap industry, carefully planning continuous line production to sustain and keep in operation approximately 80 percent of the smaller soap producers. During the past year prices paid by Government for soap averaged the lowest paid in 25 years. During the period 1942-1945 the average price of GI soap was $.0668 per pound factory origin. Procurement prices during the past

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ALLERGY LIABILITY...

Increasing product liability allergy claims focus attention on legal aspects and some recent court decisions

By John D. Conner and George A. Burroughs*

"Today, allergy of one kind or another is a common disease. Millions suffer from it and there must be hundreds of thousands more going the rounds of doctors with curious illnesses, the allergic nature of which has not yet been recognized."[1]

THIS fact presents one of the most important, but less frequently litigated, aspects of the product liability of the manufacturer and retailer of consumer items. Reports from some manufacturers indicate that product liability claims based upon such allergic reactions are on the increase.

A housewife purchases a dishwashing compound at a neighborhood grocery store and uses it in the course of her household duties. A few days later her hands become red, burned and swollen. Pain and inability to work follow. She consults a physician who diagnoses her case as dermatitis *venenada*. The physician attributes the injury to her peculiar susceptibility to an allergen in the dishwashing compound.

The allergic housewife turns litigant and sues the retailer who sold her the product and the manufacturer who placed it on the market. Her theory of action is that the retailer breached the warranty of fitness or merchantability implied by law in selling a product which proved unsafe for its intended purpose. The manufacturer might be sued on the theory of negligence in manufacturing and distributing for resale a product which would cause such injuries.

The retailer and the manufacturer contend in defense that the product was safe for use by the normal user and that whatever harm resulted was due solely to the peculiar susceptibility of the claimant's skin. Essentially they contend that there is no liability arising from the sale of a product which produces injuries only to persons in such a rarified category.

This article will review the reported court decisions which have dealt squarely with claims similar to the hypothetical case posed above. An attempt will be made to synthesize the legal principles and issues of public policy which have been developed in these decisions and then to evaluate the pattern.[2]

Legal Aspects of Allergies

BUT before passing on to the legal facets of allergies, it may be well to review the factual background out of which this problem arises.

First, allergies are not new to science or to industry. The word allergy, meaning "altered reaction" was actually coined in 1906 to connote certain changes in the reaction of human beings after serum or vaccine injections. But hay fever, hives, asthma and eczema were recognized at a much earlier date and before the mechanism of allergy was surmised.[3] In fact, Lucretius recognized and aptly analyzed the problem in the B.C. era by the adage "one man's meat is another man's poison."

Second, allergies are not the offspring of chemicals or progressive technological developments. There is no limit to the number and variety of foreign substances to which a person may be sensitive. Virtually everything which human beings consume, inhale, or touch is potentially allergenic. Medical authorities are agreed that milk, wheat and eggs, three staple foodstuffs, are leading ingestant allergens. Fish, chocolate, strawberries, and vegetable oils are among the widely consumed foods containing allergens.[4] There are people allergic to sunlight and to roentgen rays. It has been estimated that one in a thousand people react to fluorescent light rays. Nickel is not a poison or an irritant, but continued contact with nickel causes allergic reactions in many people. There are those who are allergic to horses, cats and pigeons. One young woman is reported to have been allergic to her husband's dandruff.[5] Some allergists are of the opinion that migraine is a purely allergic disease. Then there are those allergic to fabrics such as nylon or synthetic rubber, and to aspirin, penicillin, and pyrethrum.

It is the consensus among allergists that 10 percent is a conservative estimate of the population in the United States having major allergies[6] and it has been estimated that about 15 percent of living Americans now are, or have been, susceptible to allergic disorders of some nature.[7]

Third, allergies vary with the individual, even as to the same individual, and are unpredictable. Some allergics react only in hot weather,

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others only during the winter. There is also a level of tolerance which varies with the individual, and the level is itself highly inconsistent. There are substances which are not only harmless but actually beneficial to the vast majority of allergic sufferers, and yet are definitely harmful to a small minority of them. Symptoms vary. Eggs or fish might occasion nausea or diarrhea on one occasion and eruptions or swellings of the skin on another occasion.[8] Nervousness and fatigue can accentuate an allergic condition.[9] Different ingredients in a single product may induce allergic reactions to different people. Some people are allergic to the base ingredients of nail polish, others to the pigment it contains. An allergy to lipstick may be caused by the ingredients of the cream base as well as flavoring and perfume.[10]

Finally, any one of a number of allergens is capable of initiating an allergic condition which is not sufficiently pronounced to produce noticeable symptoms. The cumulative effect of a subsequent exposure to the same or a different allergen may touch off a definite allergic reaction. This may make it difficult to isolate one causating allergen in a particular disorder.

Allergy Decisions Cases

GERKIN v Brown & Sebler Co.,[11] a 1913 Michigan decision, is one of the early leading cases in which recovery was allowed to an allergic consumer. Here the claimant suffered a skin infection after wearing a dyed fur collar which was distributed by the defendant jobber. The defendant contended that the claimant was allergic to dyes and that this condition and not the properties of the article was the legal cause of the resulting injury. The rationale of recovery was stated by the court in these words—

"When the fact is once established and demonstrated by experience that a certain commodity apparently harmless contains concealed dangers, and when distributed to the public through the channels of trade and used for the purposes for which it was made and sold is sure to cause suffering to, and injure the health of, some innocent purchaser, even though the percentage of those injured be not large, a duty arises to and a responsibility rests upon the manufacturer and dealer with knowledge to the extent, at least, of warning the ignorant consumer or user of the existence of the hidden danger."

Addressing itself directly to the question of allergies, the court continued—

"That the great majority of persons are safe from the particular danger concealed in the article sold, or that few injuries in fact result from its use, does not militate against the principle when the certain fact of imminent danger to a percentage is ascertained."

Two important principles were enunciated in this decision. First, the manufacturer or dealer of a product may have a legal responsibility to an allergic person if the person is a member of a discernible class of allergics. The decision leaves unanswered the question as to how large the class must be to enable recovery but does stress that the class need not be large. Second, this responsibility may possibly be met by warning of the allergenic properties of the product.

The *Gerkin* case was later relied upon by a Missouri court in *Arnold v May Department Stores Co.*[12] where liability was imposed upon a beauty shop operator in a negligence action for injury to a patron's hair resulting from a hair dye containing trihydroxy benzoin. It is interesting to observe that the jury allowed recovery although the plaintiff introduced no medical testimony. On the other hand, the defendant produced extrinsic evidence showing that there were no prior cases of harm arising from the use of its product.

The courts of New Jersey have been rather liberal to allergics in two decisions dealing directly with the question—*Zirpola v Adam Hat Stores*[13] and *Reynolds v Sun Ray Drug Co.*[14]

In the *Zirpola* case, plaintiff sued in warranty for skin eruptions caused by the dye in a hat purchased from defendant. The dye was paraphenylenediamine, an aniline derivative. It was shown that four or five persons in a hundred coming in contact with this dye would be susceptible to injury. Recovery was allowed. In brushing aside the defense that the plaintiff was allergic, the court stated:

"The mere fact that only a small proportion of those who use a certain article would suffer injuries by reason of such use does not absolve the vendor from liability under the implied warranty created by the statute."

This decision was subsequently endorsed and followed in 1947 in *Reynolds v Sun Ray Drug Co.*, a case in which a purchaser suffered a skin infection after using a lipstick purchased from the defendant.

Massachusetts has been the forum of quite a few product liability decisions involving allergics. The landmark case in Massachusetts is *Flynn v Bedell Co.*,[15] decided in 1922. Here the court was faced with a claim by a purchaser of a fur collar which contained dye. The dye caused a face and body skin disease. The vendor of the fur piece was held liable for a breach of the implied warranty of fitness on the ground that the evidence showed that a normal person would have been similarly injured. Under these circumstances, it is plain that the fact that the plaintiff was allergic to the dye was an irrelevant consideration. However, in its opinion, the court stated that the warranty of fitness did not extend to matters "wholly unknown to the dealer and peculiar to the individual." It was this dicta that raised the later tempest.

In *Smith v Denholm & McKay Co.*,[16] the use of a depilatory cream containing thallium acetate resulted in a peripheral neuritic condition. It was shown that the consumer was allergic to the thallium acetate, but it was also shown that the quantity of this ingredient present in the product was excessive and would affect the system of a normal person. Recovery was allowed.

A rather radical departure from the principle that allergic claimants must show that the product involved would have injured a normal person before recovery will be allowed, established in the *Flynn* and *Smith* cases, was taken in 1939 in *Bianchi v Denholm & McKay Co.*[17] In this case, recovery was allowed for dermatitis caused by a face powder containing aniline dye.

The allergic plaintiff in a product liability suit occupies a vastly dissimilar role from the normergic plaintiff. The chances of successfully defending a case when the claimant is allergic are increased.

There was no evidence that the small quantities of this dye used in the product would injure a normal person. However, the court held that the product was known to irritate "some persons" and that the injured plaintiff was one of this class, although the size of the class in relationship to the total consumer population was not determined.

Cases Favoring Allergenics

FOUR Massachusetts decisions followed the *Bianchi* case, three of which imposed liability in favor of allergic plaintiffs. The first of these, *Payne v R. H. White*,[18] involving a dress which caused a skin disease denied recovery. The court, citing the *Flynn* case, stated:

"The plaintiff must show that the dress was unfit to be worn by a normal person, and cannot recover by merely showing that it was unfit for her or for some unusually susceptible person to wear."

It should be observed that in this case there was no evidence that the plaintiff was or was not a person whose skin was only normally sensitive, the court ruling that normality may be inferred. In other words, the *Payne* case apparently stands for the proposition that an injury which is shown to have occurred will be presumed to be one which would have occurred to any normal person under the same circumstances, but that such a claim can be successfully defended by showing that the injury resulted only because of an allergy and would not have occurred to a normal person.

In the second case, *Graham v Jordan Marsh Co.*,[19] decided in 1946, the court allowed recovery in a warranty action for personal injuries sustained by the plaintiff through the use of cold cream purchased from the defendant. The defendant had contended that it was not shown that the cream was harmful to a normal person and that whatever harm resulted was due to the peculiar susceptibility of the plaintiff's skin. The court held that it was error for the trial court to direct a verdict in favor of the defendant in the light of plaintiff's testimony that she was a normal individual, although plaintiff's own physician was of the opinion that her skin was unusually susceptible to cold cream.

In the third case, *Taylor v Newcomb Baking Co.*,[20] decided in 1945, the force of the *Bianchi* defection from the general rule established in *Flynn v Bedell* was reaffirmed. This was a negligence action brought by an employee against his employer for skin injuries developed in the course of his duties as a dishwasher. Recovery was allowed on the ground that the employer knew or should have known that the soap powder used by his employees was a possible source of danger to a class of persons of whom the plaintiff might be one. It was conceded that the plaintiff was allergic to the soap which had a trisodium phosphate base. The rationale of decision was expressed by the court as follows:

"It is not necessary that the majority of possible employees be susceptible. It is enough if a sufficient number are susceptible so that a jury could reasonably say that the defendant ought to have known and recognized the danger of injury and ought to have guarded against it."

Despite the ostensible departure of this case from the exacting formulae of some of the earlier cases, there were factors in the *Taylor* case which undoubtedly played a decisive role. First, there was evidence that the defendant had actual knowledge of similar injuries caused by the use of the soap powder, and, secondly, the plaintiff was one of a relatively large class of persons allergic to the product and the existence of this class was commonly known in the defendant's trade.[21]

Cases Denying Recovery

LEADING decisions adverse to allergic claimants include *Zager v F. W. Woolworth Co.*, *Ross v Porteous, Mitchell & Braun Co.*, *Barrett v S. S. Kresge Co.*, and *Landers v Safeway Stores*.

In the *Zager* case,[22] decided in 1939, the user of a freckle cream was denied recovery in a warranty action for dermatitis allegedly caused by the cream. The court held that the plaintiff's constitutional composition rather than the composition of the product was the legal cause of the injury.

And in *Ross v Porteous, Mitchell & Braun Co.*,[23] the seller of a dress shield containing rhodamine dye was held not responsible for the dermatitis of the plaintiff who wore the shield. The evidence failed to disclose any substance in the shield which was harmful.

Similarly, relief for injuries allegedly resulting from dye in a dress was denied in *Barrett v S. S. Kresge Co.*[24] Here, the court stated in the course of its opinion:

"It is well known that some people are so constituted that they cannot eat fish, strawberries, eggs, and many other foods that could be mentioned, without ill effects. It can hardly be said that a vendor thereof would be liable for a breach of an implied warranty solely because of the harmful effect due to a buyer's individual idiosyncrasy."

The court adverted to plaintiff's theory, that the warranty of fitness is breached wherever a product is unsafe for use by one having an allergy, with these words—

"If sound, it would mean that many merchants have a far reaching and possibly a ruinous liability, which they cannot anticipate or with reasonable precaution avoid."

This decision was subsequently followed in a closely related Illinois case, *Stanton v Sears, Roebuck & Co.*[25]

Landers v Safeway Stores,[26] frequently cited as a leading allergy decision, was actually decided on the ground that the injured claimant had

not proven that a bleaching solution, purchased from the defendant and allegedly the cause of a skin disease, contained any injurious ingredient. Therefore, the effect of the claimant's allergy was not reached. However, the court did endorse the concept that there is no breach of warranty where injury is caused by a peculiar susceptibility of the purchaser.

It has been noted that in a majority of allergy cases decided in Massachusetts recovery was allowed. However, with the exception of the *Bianchi* and *Taylor* cases, this jurisdiction has endorsed the rule that allergy is a defense to a product liability if it can be shown that the product involved would not have injured a normal person. Recovery was denied upon the basis of this rule in two decisions, *Bradt v Hollaway*[27] and *Longo v Touraine Stores*.[28]

The *Bradt* case was decided on the same day as *Flynn v Bedell*. Here the vendor of a fur neck piece was held not liable for skin injuries caused to the purchaser where the evidence showed that there was nothing in the fur injurious to a normal person and no evidence of external poisoning. The hypersensitiveness of the plaintiff to irritation of any sort was ruled to be the legal cause of the injury complained of.

Longo v Touraine Stores, decided in 1946, was a later wearing apparel case where recovery was denied in a warranty action brought by a purchaser of a pair of gloves the use of which allegedly caused dermatitis. The basis of decision was that the allergic claimant did not sustain the burden of proving that the glove would affect a normal person.[29]

A relatively large number of New York decisions have dealt squarely with the subject of allergies in negligence actions. Some of the landmark cases in this jurisdiction have concerned ingestant allergens such as *Willson v Faxon*, *Williams & Faxon*[30] and *Cleary v John M. Maris Co.*[31] Others such as *Karr v Inecto*,[32] *Kinkead v Lysol, Inc.*,[33] and *Singer v Oken*[34] have involved contactant allergens such as hair dyes, disinfectants, and and hand lotions.

Singer v Oken illustrates the rather strict rule which is followed in New York in allergy cases. In this case, the plaintiff sued for personal injuries sustained as a result of using a preparation consisting of calomine lotion and one percent phenol. It was clear that the plaintiff was allergic to calomine containing phenol although this mixture was in general use in the medical profession. Recovery was denied on the ground that the seller of the lotion had no reason to apprehend that it would prove harmful to one person among a multitude of users.

Recent Cases Deny Recovery

THE most recent reported decisions involving allergies are *Briggs v National Industries*[35] *and Bennett v Pilot Products Co.*[36] The latter case was handed down in 1951. These are of special interest since they concern the liability of the manufacturer and the distributor to an allergic consumer, in an action predicated upon negligence. The overwhelming majority of the earlier cases were brought against the retail dealer in actions based upon breach of warranty.

In the *Briggs* case, an action was brought for personal injuries resulting from the processing of plaintiff's hair with a cold wave preparation manufactured and distributed by the defendant. There was substantial evidence that the plaintiff was allergic and no evidence that the product had ever caused skin irritation before. In concluding that the evidence would not support a judgment in favor of the plaintiff, the court stated:

"It was not shown that the solution used on plaintiff was in fact dangerous or an irritant to the skin of any person any more than many cosmetics, face powders, cold cream and nail polish universally used by women. There is nothing in the testimony indicating that many persons were susceptible to the product and might suffer damage through its use. In fact, from the record, plaintiff's complaint is the only instance in which injury from it was claimed."

Bennett v Pilot Products Co. involved an action by a beauty operator to recover damages against the distributor of a permanent wave lotion and fixative for dermatitis resulting from handling the distributor's product. The lotion containing ammonium thioglycolate, an ingredient common to most cold wave solutions and ordinarily harmless, was used along with a powder fixative containing potassium bromate, also ordinarily harmless. It was undisputed that the plaintiff was allergic to the mixture, and it was shown that ammonium thioglycolate would be likely to produce a reaction in but one woman in a thousand using it. Recovery was sought on the ground that the defendant was negligent in distributing the product without warning the public of its allergenic properties.

The court held that the evidence did not establish that the defendant should have foreseen plaintiff's peculiar sensitivity to the mixture and recovery was denied. Significantly, the *Gerkin* and *Zirpola* decisions, previously noted, were urged by the plaintiff as authorities allowing recovery where danger and injury were applicable to the few as opposed to the public generally. Of these cases, the court said that they were not acceptable to the extent that "they sanction recovery by an unanticipated few whose sensitivities or allergies are not reasonably foreseeable."

Analysis of Allergies Law

IT is more convenient to review the reported court decisions which have dealt with the subject of allergies than it is to synthesize them into a composite pattern of legal principles. Not only is the undertaking laden with the usual pitfalls of oversimplification but the facts out of which these cases have arisen are frequently enmeshed with confusion.

It seems reasonably clear, however, that the allergic plaintiff in a product liability suit occupies a vastly dissimilar role from the normergic plaintiff. The chances of successfully defending a case where the claimant is allergic are considerably enhanced.

Quite apart from the issue of allergies, a seller owes a duty to the purchasing public to take reasonable steps to assure that the products which he markets, as a manufacturer or as a dealer, are safe for their in-

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Continuous Soapmaking

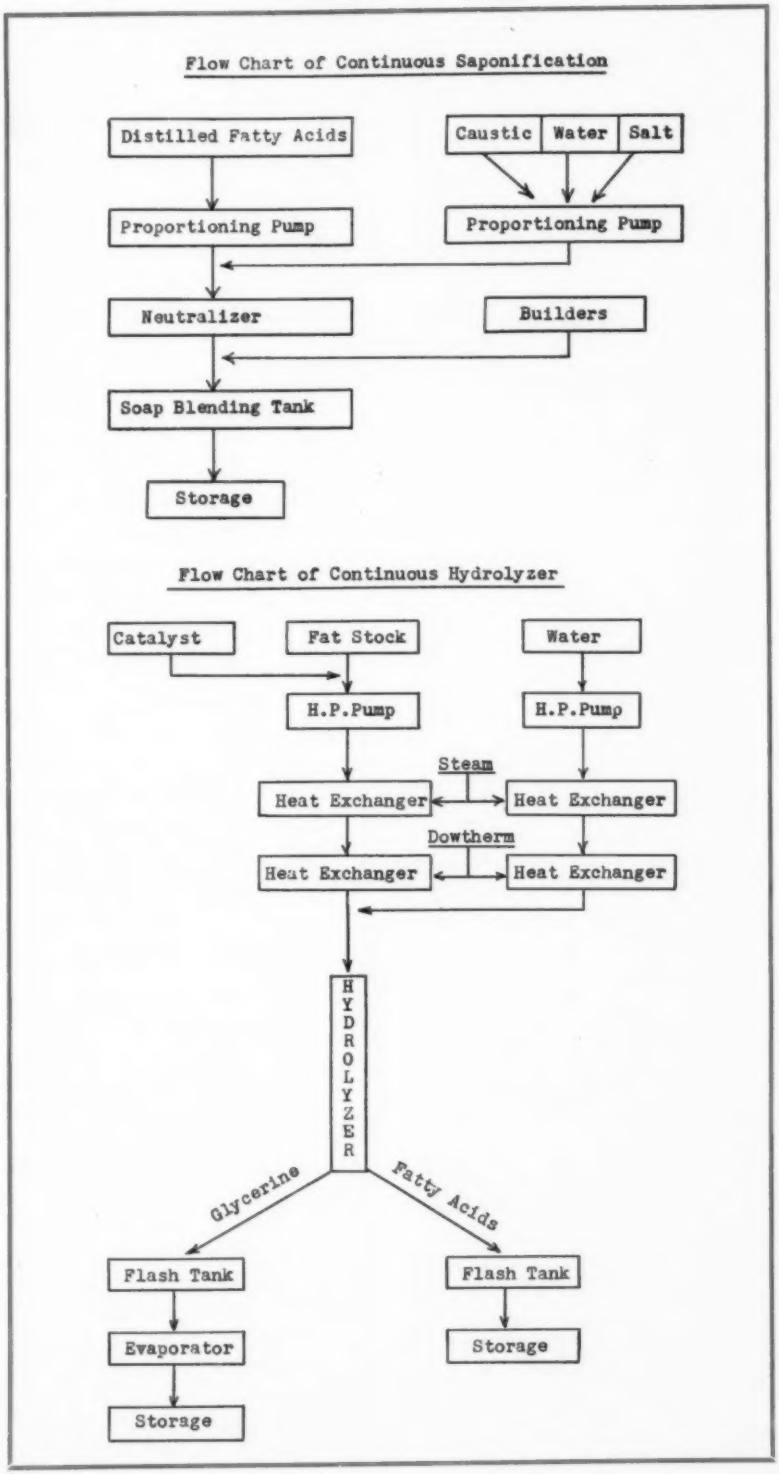
By Dr. J. L. Boyle

SOAPMAKING by the continuous process, as opposed to the saponification of batches of oil in kettles, has been in large scale operation for about 10 years now. Considering the extent to which it will affect the "art of soapmaking" comparatively little has been written about it and most of what has appeared in print has been based on surmise and patent specifications. The practice of this "science of soapmaking" cannot yet be written; we are only at the "report and discussion" stage.

The continuous process begins with the mixing of the various oils, as required by the formula of the soap being made, for about half an hour and their dehydration to less than 0.5 percent of moisture, by heating to about 105°C. Sometimes it is thought worth while, to clarify the blend by filtration but this is not a necessary step. From here the oil and the water, the latter to act as the hydrolytic agent, follow parallel courses through heat exchangers till they enter the hydrolyzing zone. The zinc oxide catalyst may be added directly to the oil feed or it may first be dissolved in fatty acids and metered into the oil feed line.

In the hydrolyzer, the rate of flow of oil and water are approximately equal. The conditions of temperature and pressure vary according to the nature of the stock. Typical conditions for coconut oil would be an oil feed rate of 4000 pounds per hour entering at 290-300°C and leaving the top of the column as fatty acids at 255°C; while the water enters at 260°C and leaves as sweetwater at 240°C containing about eight percent glycerin. The extent of hydrolysis is 98 percent and the glycerin lost in the outgoing fatty acids is of the order of 0.2 percent while the percentage of fatty acids lost in the sweetwater is about 0.05.

The fatty acids are distilled under a pressure of 2 mm. to give the lighter colored distillate which is con-



verted into soap. The still bottoms from this operation will be about eight to 10 percent of the charge and contain all the zinc catalyst, added to the hydrolyzer, in the form of zinc soap. This retains its activity and is re-used, if the scheduling permits, or is acid washed to split the soap, and the fatty acids are recovered from it. The most economical disposition of these bottoms is a point which has yet to be finally settled. In a plant running a toilet soap quality of blend, the tailings from the fatty acid distillations are added to a lower quality, such as soap powder, blend. No further catalyst is added because there is enough zinc in the tailings to act in this capacity. During the hydrolysis, the neutral fat in the tailings is hydrolyzed with the original fat stock and, in this way, there is no loss in still bottoms from the first toilet soap blend. In this way the eight to 10 percent of the charge which does not distill is recovered but in a slightly down-graded form. In the same way, the tailings from the soap powder blend can be used again, if there is a third quality of soap blend. This makes clear how planned scheduling is important; for the most economical disposal of what amounts to nearly 10 percent of the charge is a big item.

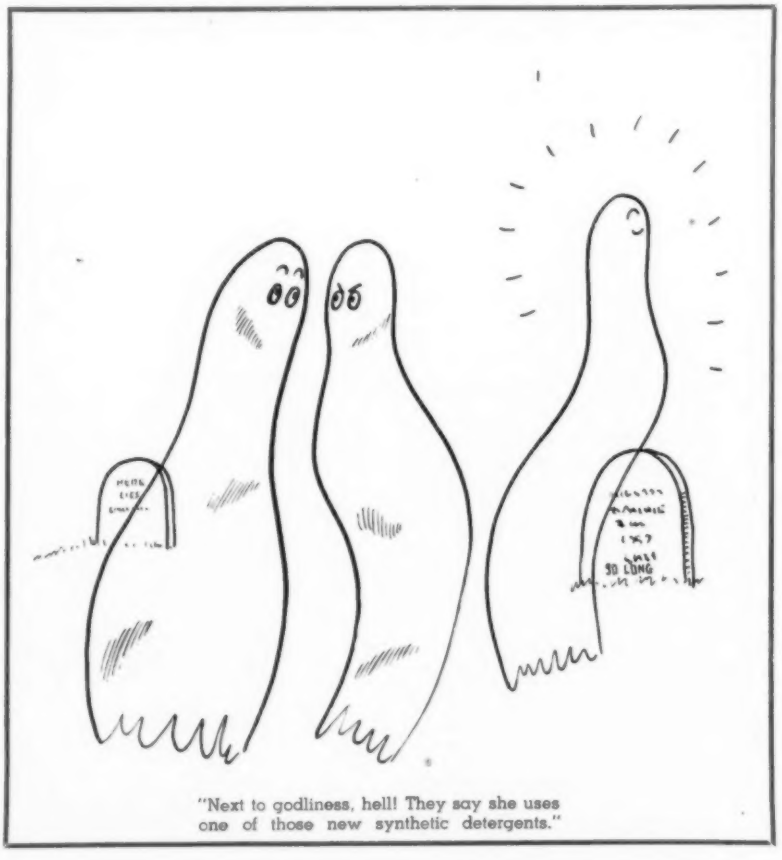
The very light stocks require fresh catalyst to be used each time and therefore, if such stocks comprise, say, 50 percent of the production, catalyst can be re-used in the form of tailings only once; if they comprise 30 percent, catalyst can be re-used twice, and so on. When it can no longer be re-used, it is boiled with about one fifth its volume of sulfuric acid for two hours, to remove the zinc from the oil layer. The latter is then converted into fatty acid by boiling with about half its volume of sulfuric acid containing a "fat-splitting" agent of the Twitchell type. The acid lye from this process contains some glycerin, from the neutral fat, in the tailings, but its recovery may not be worth while and it will then be discharged to the sewer. However, this discharge may raise a problem because the acidity is likely to exceed what is permissible by local sewage regulations. A plant producing about 500 tons per month of distilled fatty acids will have about 9000 gallons of this acid lye containing the equivalent of one ton of 100 percent sulfuric acid. One method of disposal is to run the lye through a neutralizing tank containing chalk before it enters the sewer. But one is then faced with the problem of disposing of about one to three tons of calcium sulfate sludge each month.

Distillate for Soap

THE fatty acids from the "twitchellizing" process are distilled and the distillate used for making soap. The tailings from this operation are called "third tailings". The tailings from the toilet soap blend would be first tailings; those from the lower quality blend to which the first tailings were added would be second tailings and hence, those from the twitchellizing process are thirds. These third tailings are disposed of to tar distillers or as fuel oil and are the only distillation residues that are lost to the soap making process. They amount to less than one percent of the production, the exact figure depending on the extent of recycling catalyst, as described above.

Actually, over the whole process of continuous soapmaking from hydrolyzing, through fatty acid distillation, saponification, flash drying and soap milling or spray drying, to packing the finished product, the most critical operation, as far as final soap quality is concerned, is the distillation of fatty acids.

The principle of flash distillation is used; the fatty acids are preheated to 300°C and then introduced into a high vacuum zone in the still. Under the condition of high vacuum, they vaporize and are condensed to give a lighter color distillate. The efficiency and ease of control of these stills is improved by circulating the bottoms with the fresh incoming stock and this is the regular procedure. It has the advantage that it reduces the temperature to which the fresh stock must be pre-heated and it also supplies a convenient and effective means of controlling the yield, and, through



"Next to godliness, hell! They say she uses one of those new synthetic detergents."

that, the color of the distillate. With light colored stocks, the rate of distillation is lower.

In a normal distillation apparatus, to get a higher yield of distillate one has to subject the material to a higher temperature but in the system used here, it is possible to increase the yield by increasing the proportion of bottoms that is circulated without raising the fresh feed to a higher temperature. By keeping down the temperature in this way a product of lighter color is obtained.

It is very important to keep the water content of these stocks for distillation low—about 0.2 percent. Moisture can cause dark distillates by entrainment due to the excessive foaming that occurs when water enters the high vacuum zone in the still; it also may increase the pressure in the still —which will lead to a reduced yield of distillate and adversely affect its color. The other common cause of operating trouble is the leakage of air into the still; this will, of course, increase the pressure with the consequent bad effects on yield and color; it will also lead to the development of "off" odor in the distillate and, through it, in the soap.

Saponification

FOR the saponification, the fatty acids and the caustic solution are metered and fed under pressure into the neutralizing chamber. The aim should be to hold the saponification mixture at 95°C and the temperatures of the incoming fatty acids and caustic solution are balanced to achieve this state. The strength of the caustic solution is, of course, a critical factor. It is designed to give a finished soap within the analytical limits for moisture, free caustic and salt content. For a toilet soap containing 0.04 percent free caustic and 0.3 percent salt, the caustic solution might contain 21.3 percent of free caustic and 1.3 percent of salt. These figures will, of course, vary with the nature of the stock. In this example the blend was 70 percent palm oil, 20 percent coconut and 10 percent peanut oils. The saponification mixture contained 62.5 percent anhydrous fatty acid.

On a continuous process the analytical control checks have to be more frequent than on a batch process and tests are made at least hourly. Final adjustment of the soap may be made in the mixing tank where the builders — silicate, etc. — are added. Rosin, when it is included in the formula, is dissolved in about twice its volume of fatty acid and added to the blend before saponification.

Continuous neutralization is comparatively simple and with a system of control as outlined above it is possible to produce a very consistent quality of "kettle soap". From this point onwards the conversion of the soap into its packaged form of powder, cake or flake follows the same course as in the factory which uses the traditional process of soap boiling. These finishing processes, being already adapted to continuous operation, fit neatly into the new system.

As would be expected, there are a host of small points which have to be watched in this process. For example, in neutralizing, allowance has to be made for the tendency of the free caustic content of the "kettle" soap to drop after the first few hours storage, due to the slow completion of the last fraction of saponification. Again in the neutralizing stage, when toilet soap is being made care must be taken to use only caustic that is very low in iron content; the continuous process does not have the same favorable conditions as the batch process for washing out such impurities as this and if iron, or other heavy metal impurity is not excluded at this point, discoloration of the soap will occur.

The ratio of water to oil that should be used in the hydrolyzer is primarily governed by the need to get above 99 percent hydrolysis. But this can be achieved within a fairly wide range by varying the other factors. The ratio, therefore, is set in practice by consideration of the glycerin recovery process. A high ratio of water to oil gives good glycerin extraction but places a heavier load on the evaporator and the limiting point is reached when the cost of evaporation is equal to the value of the glycerin recovered. This ratio can be calculated from the empirical relationship: percentage of glycerin in sweetwater = percentage of glycerin in Fat Stock / water to oil ratio—0.15. Thus, in a factory where the limiting concentration of glycerin in sweetwater is 10 percent, and the fat stock contains six percent of glycerin, then the water to oil ratio should be 0.75.

Another kindred point to this, is the loss of fatty acids in sweetwater. Every fat contains a proportion of water soluble fatty acids. In some it is very small, in others, such as coconut or palm kernel, it is quite appreciable. These pass into the sweetwater, particularly easily under the conditions of high temperature and pressure existing in a continuous hydrolyzer. The loss will depend on the quantity of sweetwater produced and the length of time the fatty acids are in the hydrolytic zone.

As pointed out above, eight to 10 percent of the fatty acids charged to the still remain in the bottoms and are, therefore, missing from the fatty acids which are converted into soap. If the individual fatty acid composition of the bottoms was the same as that of the original charge, this loss would not affect the formula of the resulting soap. But, in fact, the unsaturated acids are less volatile than the saturated ones and consequetnly the proportion of unsaturated acids in the distillate is lower than it was in the charge before distillation. Similarly the percentage of saturated acids is higher than it originally was. If no allowance was made for the effect of distillation, the physical characteristics of the soap would be appreciably different from those of soap made to the same formula by the soap boiling process. Since most soap is still made by the latter process, formulas have to be modified if the continuous process is expected to produce a product having the same properties as one made by the full boiled process.

The correction may be made by noting the drop in iodine value of the mixed fatty acids which takes place on distillation. From this, the loss of unsaturated acids can be calculated and the proportions of those oils high in unsaturateds, increased accordingly in the formula. The effect of the increase in saturated acids is compensated for by assuming that all the sat-

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STEAM CLEANERS

By Milton A. Lesser

STEAM cleaning, or steam-detergent cleaning as some call it, is steadily increasing in popularity. Sanitary and maintenance men have discovered that many jobs formerly done by manual brushing or scraping can be done faster, cheaper and better by combining the effects of steam and a detergent. The technique of steam cleaning is not difficult and, once they have learned the procedure and its advantages, most workers are reluctant to go back to the brush and bucket.

Steam cleaning is being used by many organizations and industries, both large and small, because it yields savings in time, labor and costs. Those who have adopted the method often become quite enthusiastic about it. Typical is O'Connor's(1) report on steam cleaning in a restaurant. Here he states that the use of a steam cleaning unit in the kitchen had cut the weekly cleaning time from 40 hours to less than 10. In addition, the cost on this one operation yielded a saving of $25.00 per week. It is understandable that, in O'Connor's opinion, "steam cleaning bids fair to revolutionize restaurant kitchen sanitation and cleaning methods because you can attain a far greater degree of cleanliness in much less time and for a lot less money."

In discussing the industrial use of steam cleaners, Thibadeau(2) cites a case in which a manufacturer was faced with the problem of cleaning large machines before overhaul and repainting. The soils to be removed included heavy grease, oils and shop dirt, plus rubbery antirust coatings and several layers of paint. It had previously taken three men one week to do the job by hand scraping, scrubbing with solvents, sand-blasting, and the like. The use of a steam gun with a powerful detergent cut the labor and time to two men and five hours.

Three-way Action

THIBADEAU points out that the advantages and superiorities of the steam cleaning method lie in its three-way action. First is the physical action of steam pressure forcing its way through successive layers of soil. Second is the dissolving and dispersing action of heat on oils, greases and other deposits. Third is the chemical action of the detergent in wetting, penetrating and emulsifying surface deposits. In addition, steam cleaning is more thorough than manual cleaning because the high pressure spray goes into corners and recesses where the hand cannot reach.

Moreover, steam cleaning is applicable to many types of equipment, such as graders, conveyers, mixers and the like, that do not lend themselves to manual, soak or circulation cleaning methods. Steam cleaning has proved to be a highly satisfactory method for removing soils from equipment with irregular surfaces and "blind" spots, because the steam carries the detergent directly to the soils where the combined power of detergency, heat and mechanical force are brought to bear.(3

Steam cleaning is safer to metals because the spray contains no abrasives to scratch or wear the surface. This is said(2) to be of particular importance in the food industry, where abrasions harbor bacteria-breeding food deposits. It should also be noted that, in many cases, steam cleaning eliminates the need for solvents and their attendant hazards of explosive or toxic fumes.

These and other advantages help to explain why steam cleaning is finding its way into almost every field, including production, transportation, agriculture and sanitation. The literature of manufacturers of steam cleaning equipment and detergents lists scores of applications for this method in dairies, canneries, bottling plants, packing plants, breweries, paper mills, textile mills, power plants, garages and fleet maintenance, and in the petroleum industry.

Uses of Steam Cleaning

FOR instance, says, Thibadeau,(2) steam cleaning is used in the aviation industry to clean motor blocks, in the overhaul shops, engine exteriors, hangar floors, runways and ramps. In bakeries, the method is used to clean bread racks, dough troughs, conveyors, walls and floors. Dairy operators use steam cleaners on fillers, sealers, conveyors, cases, refrigerators, floors and ceiling. In the heavier industries, such as power plants, oil refineries, railroads and shipyards, steam cleaning has proved itself in such varied tasks as the cleaning of engines, oil storage tanks, motors, condenser coils, transformers, cranes and steam hoists. Operators of trucks and buses use the process to clean chassis, motor blocks, pits and lift areas.

In the sanitary maintenance of industrial plants and office or public buildings, mobile steam cleaning units have proved efficient in cleaning up washrooms and fixtures.(4) They have also been recommended(5) for cleaning walls, floors, windows, lighting fixtures, and inaccessible, out-of-reach areas.

Modern steam cleaning units are compact, precisely controlled and safe. In addition to stationary machines, there are portable or mobile units that can be used in various parts of a plant or building. Broadly speaking, there are two types of steam cleaning machines. First are those that operate from existing steam sources

and which entrain the detergent solution by aspiration. Second is the steam generating type that actually heats the detergent solution for passage through a direct fired coil. The pressure in such units is often supplemented by means of a mechanical pump.(6) With either type of equipment, much depends on the efficiency of the steam gun and especially the design or shape of the nozzle. Selection of the best gun for a given job is an important consideration.(7)

Units which operate from existing steam lines are rather simple in construction and are generally made without moving parts. However, the units do incorporate valves that permit suitable adjustments for efficient operation. These manual controls permit the operator to regulate the temperature, quantity of detergent solution, and nozzle pressure to meet the requirements of a particular job.

Preparation of the cleaning solution for such units is quite simple. The required amount of detergent is placed in a small amount of water in a suitable container, such as an open top oil drum. Solution of the detergent is speeded by inserting the nozzle of the steam gun and turning on the steam supply valve, thereby obtaining the combined dissolving action of heat and agitation. When the material has been completely dissolved, remove the steam gun and add enough water to give a solution of the desired strength.

Units which generate their own steam may be stationary or mobile. Although they may differ in structure and operation, it has been pointed out (8,9) that such steam cleaners essentially are hot water heaters. Water is introduced into the machine to the water pump where the pressure is raised and the water forced through the coils at a constant rate. On most units, a detergent solution is admitted into the water stream before it enters the coils. This mixture of water and detergent is heated in the coils to the desired temperature and pressure and passes out through the delivery hose and nozzle. The heating may be done by gas, oil or electricity.

Because of the differences in design among the various units, it is important that the manufacturer's instructions be carefully followed, especially with respect to the sequence of starting up and closing down. Although many models are available to permit a wide selection, improvements are constantly being made to meet special conditions. Indicative is the development of an all-electric steam cleaner designed especially for use underground, or wherever gaseous or explosive mixtures have previously made steam cleaning impossible.(10) Also indicative is a gasoline engine driven, self-contained steam cleaner for use in the field when running water, electricity or gas lines are not available. Set up as a trailer unit, such a machine is particularly suitable for use by construction companies, oil field operators, farmers and the like.

Scale formation is one of the chief difficulties encountered with the self firing type of equipment. Since the cleaner solution under pressure comes in contact with hot metal coils, conditions are ideal for scale deposition. Scale formation can be minimized by the use of soft water and by employing cleaning compounds with the ability to sequester lime and magnesium salts. It is also important to avoid compounds containing rosins or high titre soaps, abrasives and fillers.(8) Of course, when coils become badly scaled, causing poor heat transfer, it becomes necessary to descale the equipment. Special compounds are available for this purpose.

For best results, it is preferable that the detergent be dissolved at the proper concentration in a separate container. This stock solution is transferred as required to the cleaning equipment. However, the detergent can be dissolved directly in the solution tank by means of mechanical agitation and the use of steam from the equipment.

Some manufacturers of steam cleaners also provide detergents under their own brand name for use in their equipment. Most, however, advise the purchase of suitable detergents from reliable cleaning compound makers. On occasion, they may recommend specific brands. One equipment manufacturer, (11) has done a rather thorough job in this respect. He has prepared a chart showing which cleaning compounds of nine different companies are best suited for a variety of cleaning jobs. The chart also shows that some of these materials have been tested in the equipment maker's own shops.

Specialized steam cleaner detergents are available for cleaning a variety of items ranging from sensitive aluminum aircraft surfaces to heavy construction equipment which is caked with grease and other dirt.

Special Detergents Available

SPECIALIZED steam cleaner detergents are available for cleaning a variety of items ranging from sensitive aluminum aircraft surfaces to heavy construction equipment caked with grease and dirt. Although the various types of cleaning compounds may differ in formulation, all should meet certain basic requirements. Thus it has been suggested(2) that an efficient steam cleaning compound should provide the following characteristics: (a) speed of penetration, (b) maximum solubility in water, (c) ability to sequester lime and magnesium salts of water and supplies, and (d) ability to clean thoroughly at low, economical concentrations. The compound should, of course, be free from unpleasant or noxious vapors. In addition it should produce no deleterious effect on the surfaces for which it is recommended as a cleaner.(9)

More detailed requirements with respect to composition and performance are often provided in the several Federal, Army, Navy, Air Force and other specifications covering compounds of this nature. In many instances, these specifications provide standards for various rather specialized compounds. Military Specification, MIL-C-6135 (Aer.), for example, affords considerable data on steam cleaning compounds for use on "aircraft in

cleaning aluminum, magnesium, and other metallic surfaces prior to the application of organic or inorganic surface coatings, and for the cleaning of surfaces which are to remain unpainted."

The requirements listed in this specification cover such factors as: materials, composition, moisture, solubility, total alkalinity, phosphates, pH and buffer capacity, surface tension, cleaning efficiency, corrosiveness, stability, rinsing, coarse particles, dust forming properties, and workmanship. Under composition requirement, the specification states that the cleaner shall be in the form of a non-hygroscopic powder, one that is free from fatty acid, rosin, starch, abrasives, gritty material or inert filler. The moisture content must not exceed 18 percent by weight. The total alkalinity, calculated as Na_2O, should not exceed 15 percent, while the phosphates, calculated as P_2O_4, must be not less than 15 percent by weight.

More broadly useful is the steam cleaning compound covered in the Bureau of Ships Specification 51C69. This, too, is described as being intended for use on Naval aircraft in cleaning aluminum, magnesium, and other metallic surfaces. However, it is also intended for shipboard and shipyard use in steam cleaning machines for the removal of grease and oil from various ferrous and nonferrous metallic surfaces.

Navy Specification

IN providing the detailed requirements of this steam cleaning compound, the specification calls for a product with a moisture content not exceeding 20 per cent by weight. The total alkalinity should not exceed 33 per cent, phosphates not less than 14 per cent, and silicates (calculated as SiO_2), should be between eight and 12 per cent. The detergent used in this compound must be a nondeliquescent synthetic product that is soluble and stable in the presence of the alkaline salts required in the cleaner. When used in steam gun cleaning, a solution of one to two ounces of the compound per gallon of water should be employed.

According to Middleton,(12) a formulation consisting of the following ingredients should be satisfactory for meeting this Bureau of Ships Specification:

	per cent
Sodium metasilicate (Metso Granular*)	35
Anhydrous pyrophosphate	30
Soda ash	25
Synthetic detergent	10

(* Philadelphia Quartz Co., Philadelphia, Pa.)

This authority also notes that the following composition has been suggested as meeting the requirements of Specification TAC-ES542B for a "Compound-Cleaning Vapor":

	per cent
Sodium metasilicate (Metso Granular)	40
Tetrasodium pyrophosphate	25
Soda ash	30
Synthetic detergent	5

"Santomerse" (Monsanto Chemical Co., St. Louis, Mo.) or a similar agent is suitable as the synthetic detergent in this composition. Of interest in this connection is Shelley's(13) suggestion that the anonic synthetic detergent, "Nytron",* is also suitable for use in steam cleaning equipment. He mentions in his communication that one of the Eastern state highway departments has been using this detergent in conjunction with high pressure steam apparatus for washing tracks. "Nytron" produced satisfactory results and it was preferred by the operators over a previously used caustic type cleaner. For this job, "Nytron" was used in a concentration of one-quarter ounce per gallon. It is also noted that this synthetic is often used with materials like sodium tripolyphosphate and sodium metasilicate.

In addition to the anionic detergents it has been suggested that certain nonionic detergents may also be suitable for inclusion in steam cleaning compounds.

Nonionics in Steam Cleaners

MANUFACTURERS of steam cleaning compounds may produce these materials in two, three or four basic types or classes. Those who provide two types may make them available as light duty and heavy duty products. Some include a medium duty or an extra heavy duty cleaner, or both, in their line. While these several types may vary in their composition and indications for use, the concentration at which a compound is used is also an important factor in determining its utility. Thus, by raising the proportion, a light duty cleaner can often serve efficiently to remove soil of the medium type.

In general, says Suter,(6) it is understood that light duty steam cleaners will be noncorrosive to light metals like aluminum or zinc base die castings, such as might be found on automobile engines and similar equipment. Products in this class should have no adverse effect on paint. They contain no free caustic soda and are usually compounded with sodium metasilicate, polyphosphates and suitable surface active agents. The metasilicate not only provides detergent and deflocculating effects, but it also acts to inhibit attack on the light metals. The polyphosphates provide a desirable water softening or sequestering effect, thereby helping to prevent scale formation.

In discussing production of steam cleaning detergents, Morgan (14) offers the following general formula for a light duty product; the formula providing considerable leeway as regards the availability of the various ingredients and their cost:

	parts
Synthetic detergent (Nacconol NR*)	3-10
Sodium sesquicarbonate	30-60
Sodium metasilicate	20-30
Polyphosphate	10-25

(* National Aniline Div., Allied Chemical & Dye Corp., New York, N. Y.)

It is advisable, says Morgan, to select the polyphosphate from among sodium hexametaphosphate, sodium tetraphosphate or sodium tripolyphosphate. However, in certain instances, tetrasodium pyrophosphate may also be suitable. The quantity of polyphosphate in a cleaning mixture will depend to a large extent on the hardness of the water in the area where the compound is to be used.

He also advises that the "Nacconol NR" content of the composition should be so adjusted that a good cleaning action is obtained without excessive foaming. Also important is

* Solvay Sales Division, Allied Chemical & Dye Corp., New York.

the inclusion of a sufficient quantity of a dry, amorphous ingredient such as soda ash or sodium sesquicarbonate, to combat caking tendencies in storage.

Of interest at this point is the following compound which Middleton(12) describes as being suitable for use in a nozzle injection type of steam cleaner where coils are not involved (e.g. a unit which is attached to existing steam lines):

	per cent
Sodium metasilicate (Metso-Granular)	65
Soda ash	30
Wetting agent	5

Materials like "Nacconol" or "Santomerse" are suggested as suitable wetting agents.

Medium duty detergents have a higher alkalinity than the light duty products and are intended for use on heavier, more tenacious soil deposits. They are not necessarily safe for repeated use on light metals but, when correctly employed, are not strong enough to strip paint.(6) One manufacturer of a medium duty steam cleaning compound recommends his product for cleaning machinery, trucks, buses, floors, bottling machinery, screw machines, forming presses and the like. It may also be used on food equipment, except when made of aluminum.

Heavy Duty Compounds

THE heavy duty type of steam cleaning compounds contain substantial proportions of caustic soda. In general, they are used to remove heavy or stubborn soil deposits such as caked grease, carbonized oils, and crusted dirt. More specifically, heavy duty steam cleaners are generally recommended for cleaning the undercarriages of trucks, tractors, farm equipment, mill and mining machinery, and the like. The heavy duty steam cleaning compounds are also recommended for routine farm sanitation and disinfection. Occasionally they may be used to strip oil base paints.

A general formula for a heavy duty steam cleaner, one that can be adapted to cost considerations and local requirements, is given by Morgan, (14) as follows:

	parts
Synthetic detergent (Nacconol NR)	5-20
Soda ash	30-40
Caustic soda (granular or flake)	10-20
Sodium metasilicate	20-30
Polyphosphate	10-25

His advice regarding polyphosphate, as given for light duty cleaners, applies to the heavy duty products as well. In considering the proportions of synthetic detergent, Morgan feels that, for jobs where large amounts of grease are to be removed, it is advisable to use large quantities of "Nacconol NR". He points out that this can be done without serious foaming difficulties because the grease serves as an antifoaming agent.

Extra heavy duty steam cleaners are generally designed to remove unusually heavy contaminations of dirt, oil and grease, and for stripping paints. Products of this type are suitable for cleaning tractors, steam shovels, cranes, road building equipment, machinery, locomotives and other railroad equipment, cement floors, and oil field equipment.

As might well be expected these extra heavy cleaners are highly alkaline. One typical product of this class is described as having an alkalinity, expressed as Na_2O, of approximately 69 per cent. With strong products of this nature, it is difficult to control fumes, and such fumes may be objectionable when the steam cleaner is used indoors. It is also advisable to protect the face and hands when using extra heavy duty cleaners. Obviously, products of this class are very corrosive to light metals, such as aluminum, zinc and copper, and their alloys.

Before concluding, it should be pointed out that, in addition to their use in steam cleaning equipment, many of the steam cleaning compounds can be used in soak or immersion operations. For such tank procedures, the concentration of the cleaner, the temperature of the solution, and the cleaning time will depend, of course, on the type and degree of soil present, as well as the nature of the objects being cleaned.

Bibliography

1) O'Connor, J.: *Mod. Sanitation* 2:27, Dec. 1950
2) Thibadeau, A. T.: *Mod. Sanitation* 4:21, Jan. 1952
3) Anon.: *Oakite News Service* 35:56, 1951
4) Anon.: *Occup. Hazards* 13:45, March, 1951
5) Anon.: *Food Process.*, June 1950, p. 39
6) Suter, H. R. (Wyandotte Chemicals Corp., Wyandotte, Mich.): Personal communication.
7) Anon.: "Industrial Steam-Detergent Cleaning, Where and How to Use It," New York, Oakite Products, Inc., 1949, 8 pp.
8) Anon.: *Organic Finish.* 11:23, Sept. 1950
9) Anon.: "Operation and Maintenance of Steam Cleaners," Cincinnati, DuBois Co., 1950, 9 pp.
10) Anon.: *Ind. & Eng. Chem.* 28: 1140, 1950
11) Anon.: "Detergents for Speedy-lectric Steam-Jet Cleaners," Bull. No. 80, Livingston Engineering Co., Worcester, Mass., Jan. 15, 1951

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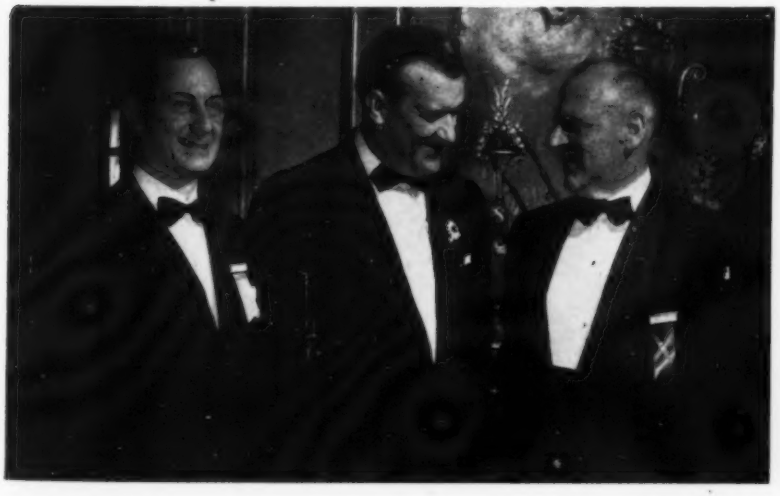
Left to right: Charles M. Macauley, DCAT Chairman, Chas. M. Macauley & Associates; Hon. Theodore R. McKeldin, Governor of Maryland and Lloyd I. Volckening, Chairman, Dinner Arrangements Committee, Pres., The Ivers-Lee Company at 26th Annual Dinner, Drug, Chemical & Allied Trades Section, New York Board of Trade, Inc., March 6, 1952.



Safety in Decolorizing Fats

USE of propane in decolorizing animal, vegetable and marine oils and fats for soap, cosmetics and fatty acid manufacturers has proved to be an economical extraction process but it calls for strict safety measures because of the high volatility and combustibility of the liquid petroleum gas used as the solvent.

At the processing plant of Refinol, Inc., Cincinnati, one of the few of its kind in the U. S., stringent safety precautions are followed in handling large amounts of propane for the liquid-liquid solvent extraction operation.

Emile Detjen, Refinol's secretary-treasurer and general plant manager, explained that the propane decolorizing process is an outgrowth of propane deasphalting in the petroleum industry. At the plant, which was designed, engineered and erected under the supervision of E. P. Detjen & Co., New York in 1949, the decolorization process results in an average crude loss of only two to three per cent. Processing capacity ranges from 90,000 to 120,000 pounds per day of animal tallow or grease. When processing, there are approximately 240,000 gallons of propane circulated per day. Theoretically, all of the fluid solvent employed in the operation is recovered either under pressure or by recompression and returned to the starting point. Losses would occur only through equipment leakages.

Leakage Detection

ONE of the safety problems that confronted the designers was to find some method of detecting propane leaks in piping, pumps and pressure vessels. In the process, it is necessary to use odor-free propane which makes human detection of the gas virtually impossible, as well as impractical. To safeguard personnel and the plant from explosions caused by leakage of the gas, the company installed an eight-point MSA combustible gas alarm system, developed by the Mine Safety Appliances Company, Pittsburgh. With this system, atmospheric samples from eight strategic locations are analyzed alternately to detect propane-air mixtures. If the mixture reaches 20 per cent of the lower explosive limit, a red warning light flashes on the instrument panel in the control house and a loud Klaxon horn sounds. Indicator lights on the panel also show from which of the eight sampling locations the propane-air mixture was taken.

On several occasions, Mr. Detjen reported, the alarm system detected and warned of propane-air mixtures before an explosive concentraiton developed. This enabled personnel to locate the leak quickly and take remedial action. It also prevented the loss of large amounts of solvent.

Besides the permanently installed combustible gas alarm system, the company also uses two portable instruments, MSA Explosimeters, to spot-check certain areas before any "hot work" like welding or burning is undertaken. The Explosimeters have proved their worth also in checking the finished product and by-product tanks for the presence of propane. Although the process is designed to remove all propane from finished products, failure or malfunction of stripping steam equipment could result in some LP gas remaining in the finished tallow.

Once each hour, an Explosimeter is used to sample atmosphere from the top of the two 24,000-gallon finished product tanks and, when necessary, from the one by-product tank. When propane is detected in a tank, the contents are diverted into the crude stream for reprocessing. Substantial amounts of money have been saved by detecting traces of propane in the product before the latter was loaded into tank cars and shipped to customers, Mr. Detjen said.

Sampling locations for the permanent combustible gas alarms include two at the drain of the propane work tank; one each at the two propane charge pumps; two at the base of the decolorizing tower; one at the grease trap, and one at the condensate sampling pots. Sampling intake openings are equipped with mechanical filters.

The entire plant, except the boiler house located several hundred feet away, is operated from a small control station containing necessary switches and starters on a well-marked control panel. In this house also, under constant surveillance of operating personnel, is the MSA combustible gas alarm panel. Air samples are piped to the instrument through copper tubing and analyzed individually on a 30-second cycle.

Air Sample Analysis

FOR analysis, the air sample is passed over a heated platinum filament which is part of a balanced bridge circuit. Any combustibles present in the sample are burned on contacting this filament. The resultant temperature rise increases the electrical resistance of the detector filament. As the resistance of the detector filament increases, the circuit is unbalanced in direct proportion to the percentage of combustibles in the sample. The unbalancing is indicated by a contact-making meter visible on the face of the instrument panel. When the propane-air mixture reaches 20 per cent of the lower explosive limit the needle of the meter is drawn into contact with a magnetic post, closing the alarm circuit, energizing the warning light and actuating the signal horn. The indicator light for the location from which the combustible sample was taken, remains on until the instrument is reset by depressing a momentary contact switch. Air samples are drawn to the instrument by a turbo-compressor pump integral with the equipment. The entire instrument assembly itself is of explosion-proof construction.

The small portable Explosimeter used to assure loading of propane-free products operates essentially in the same manner, except that it is powered with flashlight dry cells, and air samples are drawn into it by means of a rubber aspirator bulb. The meter scale is graduated in percentage of the lower explosive limit concentration.

In the decolorizing process, tallow or grease is charged into the decolorizing tower by a pump through a heater. Propane is introduced into the bottom of the tower from the propane work tank by a charge pump through a propane charge heater. A solution consisting of decolorized tallow and most of the liquid propane leaves the top of the tower while a residual mixture of color bodies, a small amount of liquid propane, oxidized fatty acids and moisture initially present in the charge material, goes to the bottom.

Recovery of propane from the overhead material consists of primary and secondary vaporizing heaters and flash drums, a steam stripper, a product pump and a product cooler. The bottoms solution is handled in similar fashion. Propane from both the overhead and bottoms recovery processes

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Overall view (top left) of processing plant of Refinol, Inc., Cincinnati, where propane is used in decolorizing animal, vegetable and fish oils and fats. On the left is the boiler house; in the center is the decolorizing tower. Tall flare stack for burning or exhausting vapors from low pressure relief valve system is shown at the left.

Process control board is shown (bottom left). In the background is the MSA Combustible Gas Alarm which alternately samples and analyzes atmosphere from eight strategic locations to warn of combustible concentrations of propane-air mixtures. At the top of the alarm instrument panel are eight indicator lights to show what location the sample is being drawn from.

A portable MSA Explosimeter (top center) is used to make sure finished products are free from propane. Aspirator tube from the small battery-powered instrument is attached to a sampling line leading to top of tank.

One of the "hot spots" in the plant (bottom center) is drain line from the propane work tank. Two air sampling lines attached to the concrete wall supporting the work tank, continuously draw atmosphere from the vicinity for analysis. Danger here is that propane may be trapped in the drainage from the tank and escape from valves or drain sump.

Two air sample intakes (top right) are located beside pumps which charge the decolorizing tower with propane from a work tank. One pump is a spare. The entire area is safeguarded by the gas alarm.

Another air sampling line (bottom right) from the MSA Combustible Gas Alarm protects the cooling tower pit. It is mounted on the wooden framework of the cooling tower with the sample intake running to within a few inches of the water level in the pit. Condensate sampling pots are shown in the foreground.

WHAT'S

A new promotion of Allen B. Wrisley Co., Chicago, to commemorate its 90th anniversary, is "Floral Bouquet," a box of five cakes of toilet soap in floral design. The box sells for 59 cents or two boxes for $1.00. The promotion is part of a special summer offering.

New "Hayes 6" spray gun announced recently by Ray Sanders & Co., Pasadena, national distributors. The spray gun attaches to garden hoses and operates on water pressure. The new "Hayes 6" weighs 3¾ pounds fully loaded to spray six gallons of spray solution. It has long nozzle to spray inside of plants. Costs $9.95.

Winner of the second place award in the soap category of the contest conducted recently by the Folding Box Association of America is the new carton for "Nu Bora" borax soap granules made by Nu Bora Soap Co. Printed in three colors, carton was made by Container Corp. of America. Design gives obvious product identification in the opinion of the judges.

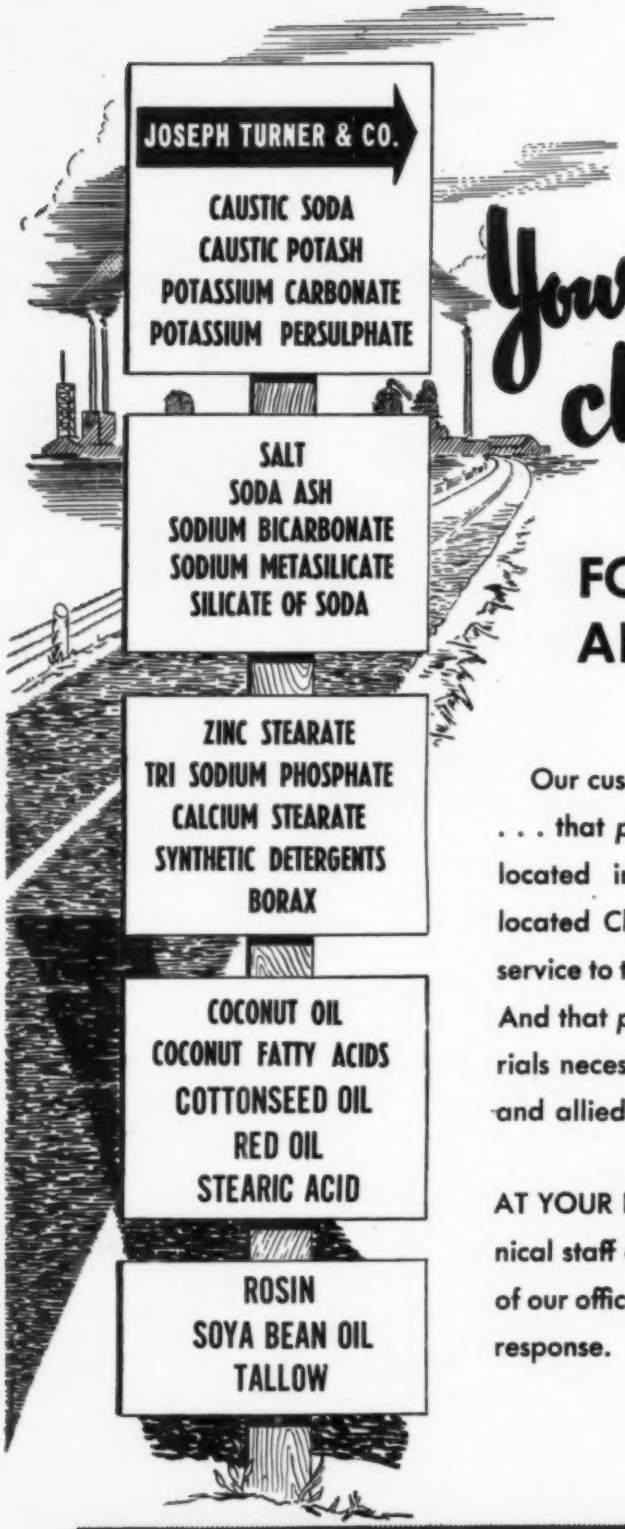
New "Hy-Tron" lindane vaporizing device of Hysan Products Co., Chicago, circulates air as well, through built in electric fan. A pilot light tells when the unit is operating and a thermostat is incorporated for automatic control. A hinged back door swings open with insertion of small key for replacement of air freshener. Insect tablet is said to be vaporized by forced draft of fan as well as by electrical heating element.

NEW?

New package design with permanent applied color labels adopted recently by J. W. Quinn Drug Co., Greenwood, Miss., for its complete line of household and chemical items. Packages being distributed in pint and quart sizes through wholesalers in the southeast and southwest. "Duraglass" bottles with permanent applied color labels fused onto the glass and metal caps supplied by Owens-Illinois-Glass Co., Toledo, O., which redesigned the line.

Ten square foot display created by Boyle-Midway, Inc., New York, through its sales promotion department for sales of its full line of household products. A folder with detailed instructions, photo-illustrations and diagrams is available to retailers through the firm's salesmen. Tested in 1951 it was found to move goods fast because it displayed 28 items needed for spring cleaning and everything was within easy reach for impulse buying.

New wall model unit of Columbia Chemical Co., Chicago, for control of flying insects was introduced at recent trade show and convention of National Sanitary Supply Association. The unit vaporizes lindane and is equipped with thermostatically controlled heating element and automatic safety cut off. Lower portion of bowl is stainless steel and upper portion is ceramic and comes in various colors.



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News

Hoff With Packers Tar Soap

Louis Hoff was recently appointed sales manager of the Grocery Division of Packers Tar Soap, Inc.,

LOUIS HOFF

Mystic, Conn. Mr. Hoff was formerly sales manager of the Allied Molasses Co., and regional sales director for Beechnut, and McCormick & Co.

AASGP Meeting Dates

The Association of American Soap & Glycerine Producers recently announced that its 26th annual convention will be held January 26 through 28, 1953, at the Waldorf-Astoria Hotel, New York. Tentative reservations have been made with the Waldorf for the 1954 and 1955 meetings.

Williams, Semler to Merge

Directors of J. B. Williams Co., Glastonbury, Conn., and R. B. Semler, Inc., New Canaan, Conn., recently voted to merge the two companies. The new company will be operated under the name of J. B. Williams Co.

Under the agreement stockholders of Williams will retain the same securities. Stockholders of Semler will receive $3 in five percent ten-year Williams debentures, and one fifth of a share of Williams common stock for each share of Semler held. The proposal will be submitted to stockholders of both companies at meetings to be held late in April.

Williams makes "Williams Shaving Cream", "Aqua Velva", "Skol", and "Skat". Semler is the owner and distributor of "Kreml" hair preparations.

O. M. Kaufman Dies

Orien Milton Kaufman, buyer for Procter & Gamble Co., Cincinnati, died recently at his home at 1326 Suncrest Drive, Hyde Park. He was 44 years old. Death was attributed to a heart attack caused by a virus infection.

Born in Lockland, Mr. Kaufman graduated from Hughes High School and Yale University. He joined Procter & Gamble after receiving his M.A. degree in economics from the University of Cincinnati in 1933.

In addition to his widow, Margery Stegner Kaufman, he is survived by two children, James Bentley Kaufman, 13, and Susan LaRue Kaufman, 7, and a brother, Elbert Lee Kaufman of Roselawn.

Coconut Oil Export Ban Off

U. S. Department of Agriculture recently announced that coconut oil has been removed from export allocation and that the Office of International Trade is being authorized to place these oils under general license. Export allocation of 100,000 pounds of commercial and sulphonated castor oil was announced for the second quarter. The quantity is the same as was allocated for the first quarter of 1952.

Lorick Forms New Company

La Marick Beauty Products Co. has been formed recently by F. W. Lorick, Sr., in Charlotte, N. C. The new company manufactures a dandruff remover shampoo. Mr. Lorick has operated a chain of beauty salons for twenty years.

Craig Named by Wyandotte

The appointment of John L. Craig as sales representative assigned to the Cincinnati office was recently

JOHN L. CRAIG

announced by H. F. Roderick, general manager, Michigan Alkali Division, Wyandotte Chemicals Corp., Wyandotte, Mich.

Mr. Craig joined Wyandotte Chemicals' market development department in 1949. As a technical field representative, he was responsible for the technological development of the many new organics produced at Wyandotte over the last few years. Prior to joining Wyandotte Mr. Craig was associated with du Pont.

Cleaning Fluid Deaths

At least twelve deaths in New York last year were caused by carbon tetrachloride, Assistant Health Commissioner Jerome Trichter announced recently. As a result, the Board of Health is considering an amendment to the Sanitary Code, which it was to discuss at its meeting April 14, requiring that all containers of the cleaning fluid be labeled with adequate warning against misuse.

The fact that at least twelve deaths had been caused by the chemical in the cleaning fluid was called to the attention of the Department of

consider its odor....

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Altho odor appreciation in such products as detergents, insecticides and other chemical specialties may be a subconscious influence—it is an *effective* influence on product acceptability.

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- **EFFECTIVE MASKING.**
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Health by Dr. Milton Helpern, Deputy Chief Medical Examiner. The department and Dr. Helpern are continuing a study of the hazard.

P & G Canada Awards

Factory production has almost doubled over the last ten years at the plant of Procter & Gamble Co. of Canada, Hamilton, Ont., J. R. Baillie, vice president in charge of manufacture, told a recent meeting of employees. Mr. Baillie said that expansion and modernization of manufacturing facilities had continued without interruption for over seven years. A highlight of the meeting was the presentation of the Procter & Gamble safety award for 1,000,000 man hours worked without a lost-time accident.

Making the presentation was W. L. Lingle, vice president in charge of overseas operations, of Procter & Gamble Co. The award was made jointly to David McWhirter, chairman of the employees' conference committee; Frank Gilmour, safety engineer; Thomas Robinson and William Marsh, members of the factory safety committee.

Jack Mohr Joins Lentheric

Jack Mohr, formerly with Richard Hudnut, New York, has recently joined Lentheric, Inc., New York, as vice president in charge of advertising and merchandising.

Overproduce German Soap

According to a report in a recent issue of *Seifen-Oele-Fette-Wachse,* increased production of German soap plants has led to a situation in which many producers sell below costs. Revival of compulsory cartellization of the soap industry has been under consideration. This measure saved many German soap firms in 1934, by fixing minimum soap prices, according to the publication. The present situation is being blamed on large inventories, buyer resistance owing to money shortage, the practice of sending the household wash to the laundry, unstable prices of imported fats, as well as rising costs of labor, coal, packaging materials, advertising, etc.

C-P-P Buys in Jersey City

Colgate-Palmolive-Peet Co., Jersey City, recently purchased from the International Elevating Co. the land, piers, and water front property at Morris street and the Hudson river, according to Ben Schlossberg Inc., Jersey City real estate brokers.

E. W. Ercklentz, who recently was appointed vice-president in charge of sales for Kearny Manufacturing Co., Kearny, N. J.

"Camay" for Britain

"Camay" soap, made by Procter & Gamble Co., Cincinnati, may be introduced into Great Britain, it was learned recently. No positive comment is available from Thomas Hedley & Co., P & G's British affiliate.

Detrex Has New Cleaner

A non-dusting, free-flowing compound designed for removing heavily carbonized frying oil and food deposits from deep fryers has recently been added to the line of specialized cleaners manufactured by the food service division of Detrex Corp., Detroit. The new compound, known as, "Detrex 30", saponifies burnt on frying oils, including pure vegetable, hydrogenated and blended oils. The penetrating properties of formula 30 loosens accumulated carbonized residue, so that it may easily be flushed away.

"Detrex 30" may be used at low concentrations and in areas of widely varying degrees of water hardness. It is used at temperatures encountered at normal deep-fryer clean-up cycles. It contains no soaps, resin or resinates, and is completely free rinsing.

"Breeze" Reintroduced

Lever Brothers Co., New York, is reintroducing "Breeze" in two test markets as an all-purpose detergent. The product was formerly marketed as a light-duty detergent. Lever is launching "Breeze" with a 15 cent newspaper coupon toward the purchase of two large cartons, and a dish-towel or face cloth in every package.

Wrisley Seed Offer

A free package of 1,000 flower seeds is being offered during the month of April by Allen B. Wrisley Co., Chicago, with its plastic bag of eight assorted toilet soaps. This seed package containing 25 varieties of seeds, said to be worth 25 cents is tied to the neck of each bag. Other sales aids are also available to dealers.

Blaesi Retires from P & G

Walter Blaesi, office manager of the St. Bernard, O., factory of Procter & Gamble Co., Cincinnati, recently retired after almost 50 years of service in the soap industry. He was honored at a testimonial dinner and presented with several gifts. A native of Cincinnati, Mr. Blaesi joined the old Globe Soap Co. as an office boy. When P & G purchased the company in 1928 he was named to his present supervisory position.

Oil Chemists Convention

Arrangements for the 43rd annual meeting of the American Oil Chemists' Society to be held at the Shamrock Hotel, Houston, Texas, April 28 through 30, are almost completed, according to a recent announcement by William Argue, of Anderson, Clayton Co., Houston, who is general chairman. More than 30 technical papers are scheduled by the program committee, of which Prof. J. D. Lindsay of Texas A & M is chairman. In addition there will be committee reports and reports by officers. Results of the election of officers by mail balloting will be announced at the meeting by A. E. Bailey, of Humko Co., Memphis, A.O.C.S. president.

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Q-TABS dissolve in water with extreme rapidity! In a matter of a few seconds the tablet disintegrates and goes into solution—EVEN IN COLD WATER.

GLASSWARE SPARKLING CLEAN!

Q-TABS used in the final rinse tank leave glassware and other eating utensils spanking, sparkling clean. There is no film—no smudge—just crystal clear glassware that you can be proud to serve to your customers!

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Users of Q-TABS have the benefit of using the *finest quaternary ammonium tablet on the market!* Saves time — saves labor — saves effort — saves breakage — saves handling — saves transportation cost — and last but not least important, saves money! Q-TABS are more economical to use because there is no waste from over-dosage, broken bottles, spilled liquid, etc. So next time you need a sanitizer, don't ask for "a quaternary ammonium compound" — INSIST ON Q-TABS — THE FINEST OF THEM ALL!!

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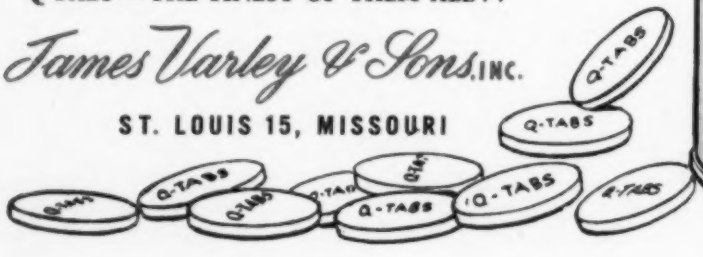

Tour C-P-P Plant

The New Jersey chapter of the American Materials Handling Society recently toured the plant of Colgate-Palmolive-Peet Co., Jersey City. The tour was followed by a dinner meeting and discussion by guests and management representatives of the facilities which had been inspected.

Magnus Presides at Dinner

P. C. Magnus, president of Magnus, Mabee & Reynard, Inc., New York, who was recently reelected chairman of the committee on public health and welfare of the Chamber of Commerce of New York State, served as chairman and toastmaster for the Girls' Town, Inc., dedication dinner at the Waldorf Astoria Hotel, New York, March 13.

Reviews Chemical Supply

In its fifth review of the supply situation on various chemicals the Defense Production Administration recently indicated that, although some important chemicals have eased somewhat, the general situation is still unchanged. Among chemicals on the short supply list are benzene, carbon tetrachloride, chlorine, freon, methylene chloride (most critical), naphthalene, pine oil, pyrethrum, and trichlorethylene. Among those listed as being in approximate balance are allethrin, DDT, ethanolamines, glycerine, paradichlorobenzene, and perchlorethylene. Group 3, "fair to good supply," includes benzene hexachloride, caustic potash, caustic soda, rotenone, shellac, and soda ash.

"Kidmetics" Contest

Associated Brands, Newark, N. J., is offering a total of $500 in cash prizes in a special contest promotion on its "Kidmetics" bubble bath, it was announced recently. The contest is open to children between the ages of 4 and 14. Awards will be made for the best coloring job in a coloring book featuring trademarked characters that appear on "Kidmetics" packages. The store from which the winning entry blank was obtained is also eligible for a prize.

The coloring books are available in a special "Kidmetics" bubble bath package deal, which also includes counter cards, window streamers, and other sales aids.

E. H. Christensen Dies

Ernest H. Christensen, 58, production manager for the J. R. Watkins Co., Newark, manufacturer of toilet articles, which he served for 26 years, died March 11 at his home in Scotch Plains, N. J., after a long illness. He was born in Denmark, and was a former president of Fremad Lodge, Danish Brotherhood of America. He is survived by his wife, Lilly E. Christensen, and two sisters.

German Cleaner Output

German production figures for leather cleaning and polishing compounds for 1951 were approximately 10,000 tons, according to a recent issue of *Chemische Industrie*. Output of floor cleaning and polishing compounds was approximately 16,000 to 17,000 tons for 1951.

Charles R. Lichtenberg, head of Chicago Sanitary Products Co., on his recent winter vacation to Acapulco, Mexico, fished the monster, at right, out of the ocean. Tanned and rested, Charley, who had returned to Chicago for the annual meeting of the National Sanitary Supply Assn., is making plans for next year's junket.

Philippine Copra Data

Total exports of Philippine copra during January 1952 amounted to 66,683 long tons and 6,586 long tons of coconut oil. This represents an increase of 14 percent over the combined volume exported in January 1951. But exports to the United States for the month showed a marked drop from the corresponding figure for January 1951. January 1952 shipments to U. S. were 35,240 long tons of copra and 7,840 tons of coconut oil.

Alkali Chlorine Meeting

Members of the Alkaline Chlorine Industry Advisory Committee recently suggested to the National Production Authority, U. S. Department of Commerce, that a clause in NPA order M-31, chlorine, requiring producers to devote not more than 10 percent of their marketable production per month to filling defense rated orders, should be maintained.

Chlorine production in 1951 amounted to 2,513,000 tons, as compared with an output of 2,084,000 tons in 1950, the committee was told. Capacity on January 1, 1952, was 2,670,000 tons, or a 7,420-ton daily rate. The expansion goal established by the Defense Production Administration for the annual production of chlorine is 3,430,000 tons by 1955.

Trask Co. Moves Ellison

According to a recent announcement by Arthur C. Trask Co., Chicago, Clifford J. Ellison was transferred from Chicago to St. Louis. His new address is P.O. Box 63, Webster Groves 19, Missouri.

Oil Chemists Hear Whtie

Frank B. White, Foster Wheeler Co., New York, was principal speaker at a recent meeting in New York of North East Oil Chemists Society. His subject was "Fractional Distillation of Fatty Acids". The next meeting of the society will be at the Military Park Hotel, Newark, N. J., April 17. Fred H. Smith, Sharples Corp., Philadelphia will address the meeting on "An Analysis of the Centrifuge in Vegetable Oil Refining".

"It's been smooth sailing since I switched to Givaudan fragrances for soaps."

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330 West 42nd Street, New York 36, N. Y.

Labor Fights Coconut Tax

THE CIO, through Local No. 1 of the United Chemical Workers, has entered the battle to aid in removing the three-cent processing tax on coconut oil. Local No. 1, which is located at the plant of Spencer Kellogg & Sons, Edgewater, N. J., has filed a memorandum with the Ways and Means Committee of the House of Representatives asking for hearings and support for a bill designed to eliminate the coconut oil tax, H. R. 6292, introduced by Rep. Franck Havenner of the Fourth California District which is in San Francisco.

In appealing for repeal of the coconut oil tax, the United Chemical Workers point out the growing threat to employment in the copra crushing, fat and oil refining and soap industries. Figures showing the dwindling disappearance of soap per capita in the United States, indicating it to be today the same as it was thirty years ago at 21 lbs., have been presented to the Committee. The memorandum states that the decline in the consumption of soap is due to the upsurge in syndets which began during the recent world war days when soap makers were cut off from supplies of coconut oil and copra.

The memorandum states: "While synthetic detergents have been made in the United States since 1930, they obtained no foothold until soap makers were largely deprived of coconut oil — which produces free lathering qualities—during World War II. In 1940, the synthetic detergent manufacturers using the coconut oil shortage as an umbrella were able to take 3 per cent of our soap market and in 1950, 26.7 per cent, and it is estimated that they took 30 per cent in 1951. . . . A large proportion of the copra crushing capacity on the east and west coasts is shut down as a result of declining copra imports. Those mills which are operating do so only sporadically. This means that our industry is confronted with a serious unemployment problem. It is for this reason that we most earnestly petition that hearings on H.R. 6292 be held at the earliest possible date, as every day means the loss of more jobs."

A Washington spokesman for soap and vegetable oil interests in commenting on the CIO memorandum, stated: "It is quite obvious that the United Chemical Workers in fighting to regain employment which their members have lost, are also battling in the interests of every soap maker. They are striving to keep soap machinery from becoming museum pieces. Likewise, they are battling in the interest of the tallow renderer, for unless the soap maker is freed from the burden of the three-cent coconut oil tax, he will use less and less tallow and grease as well as coconut oil. If the soaper can introduce 18 to 25 per cent coconut oil into his formulas at a reasonable price, the better able he is to compete with synthetic detergents both pricewise and qualitatively. There is every reason why the soap maker should write his Congressman in support of this bill as a means of doing a little battling in his own interests."

Elmer Matter, unit manager in the Grand Rapids territory for Procter & Gamble Co., Cincinnati, has just been named assistant chief of the Drug, Solvents and Detergents Branch of the Chemical Division of the National Production Authority, U. S. Department of Commerce. He succeeds George A. Wrisley of Allen B. Wrisley Co., Chicago, who completed his service with NPA as Chief, Glycerine, Soap and Synthetic Detergents Section of the Chemical Division, April 1. Mr. Wrisley's assistant, Albert S. Burgess of Swift & Co., Chicago, completes his period of service with NPA July 1.

Beach to Sugar Beet

The appointment of Willis J. Beech as chemist for Sugar Beet Products Co., Saginaw, Mich., was announced March 22nd. Mr. Beach, a former associate editor of *Soap and Sanitary Chemicals*, started in the soap business in 1936 with the chemical division of Procter and Gamble Co., Cincinnati. In 1939, he joined the Hershey Estates, Hershey, Pa., to aid in the development of a line of cocoa-butter soap products.

He spent four years in the Navy during the war and was responsible for plant layout, design, and purchase of equipment for a coconut oil mill and soap plant on Guam for the Naval Military Government. He joined *Soap and Sanitary Chemicals* in 1946 and became a technical consultant for Will Corp., Rochester, N. Y., in 1949, advising on the performance and application of laboratory apparatus and instruments. A 1935 graduate of Cornell University, where he majored in chemistry, Mr. Beach did graduate work there and at M. I. T., specializing in colloids and surface-active agents.

His work, at the start, for Sugar Beet Products, will be in the selection of new equipment for the processing of soaps and cleaners.

Diaper Institute Meets

H. Kohnstamm Co., New York featured a new laundry compound, "Inex" in a display at the 7th annual convention of the Diaper Institute of America, held at the Conrad Hilton Hotel, Chicago March 24 to 26. The product is described as "not an optical bleach" but one which, when added to the first rinse "improves laundering quality and maintains whiteness." "Inex" can be used in cold water, which cuts production costs, it is claimed, since the need for a fuel to heat water is eliminated. Also shown by Kohnstamm was "Diasan" textile sanitizer and various bleaches and sours.

Presented during the convention sessions was a report on "Washing Technology Factors In Detergency". Dr. Joseph C. Sherrill of the Institute's research staff gave the talk.

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Toilet Goods Association Meets in N. Y. May 12

PROGRAM details just announced for the 17th annual convention of the Toilet Goods Association, to be held May 12, 13 and 14, at the Waldorf-Astoria Hotel, New York, include several papers dealing with the effect of shampoos and surface active agents on the eye. These papers will be presented during the meeting of the T.G.A.'s Scientific Section, May 14, the final day of the meeting. In addition the Scientific Section meeting will hear a report on the analysis of ammoniated dentifrices in a paper of that title by F. W. Schreiber and H. Breuer of the Pepsodent Division of Lever Brothers Co., New York.

The first day of the three-day meeting, for which Lamson Scovill of Scovill Manufacturing Co., is convention committee chairman, will be highlighted by an open session on "Questions on Current Problems Confronting the Industry" with S. L. Mayham, T.G.A. executive vice-president as moderator. At the luncheon on May 12, the Charles S. Welch Memorial Packaging Awards are to be made. Reports of association officers, the scientific directors and its counsel occupy the morning session.

A debate on the Robinson-Patman Act featuring attorneys from the government and the toilet goods industry highlight the session on the second morning of the meeting (May 13). Prior to the debate, Edward Sagarin of the Sagarin Institute for Olfactory Research will speak on cosmetics. Following a group luncheon there will be a closed meeting for manufacturing members.

Papers to be presented during the meeting of the Scientific Section include:

"Some Limitations of Surface Active Materials in Cosmetic Practice" by J. R. Hollenberg of Van Dyk & Co.; "Some Eye Irritation Studies of Shampoos and Other Hair Preparations" by Russell A. Cain and William R. Markland of John H. Breck, Inc.; "Physiological Effects of Certain Surface Active Agents on the Rabbit Eye" by L. W. Hazelton of Hazelton Laboratories; "Toxicity to Eye Mucosa of Certain Cosmetic Preparations Containing Surface Active Agents" by J. H. Draize and E. A. Kelley, Division of Pharmacology, Food and Drug Administration, Federal Security Agency.

To Make Glassy Phosphates

American Dyewood Co., a division of United Dye and Chemical Corp., New York, announced recently that it has acquired rights for the manufacture of glassy phosphates by the Mackenzie process, including a license under U. S. Patent No. 2,574,047. Facilities for the production in commercial quantities of "Hy-Phos" glassy phosphates, the name under which the product will be sold, are being installed at the American Dyewood plant on the Delaware River in Chester, Pa. Full scale operations are expected to begin next month.

"Hy-Phos," noted for its sequestering power, finds application in such fields as soaps and synthetic detergents, industrial and household cleaners, dish washing, dairy cleaning, bottle washing, metal cleaning, steam cleaning, etc.

American Dyewood Co. is handling sales and production and has set up a Hy-Phos Sales Division with headquarters in Chester. Branch sales offices are located in Belleville, N. J., Chicago, Danvers, Mass., and Philadelphia. The main office of American Dyewood Co. in New York is having personnel assigned to the project, and research laboratories and engineering staffs in Belleville, N. J., and Chester, Pa., are equipped to give technical service in fields of application.

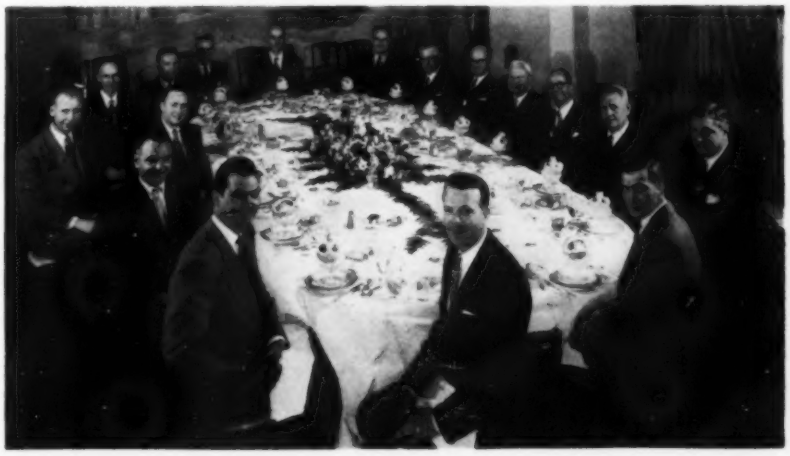
Gair Transfers Rust

Robert Gair Co., New York, recently announced appointment of Henry Rust as division manager of its Bogota, N. J. plant, where the firm operates a paperboard mill and solid fiber box shop.

Wrisley Appoints Two

Two changes in personnel were recently announced by George A. Wrisley, Jr., general sales manager, Allen B. Wrisley Co., Chicago. O. L. Whitworth, formerly of Liggett and Meyers, has replaced Jack Breit as Texas sales representative, and Roy Williams, formerly with Yardley of London, has succeeded Curt Neely as Southeastern sales representative.

Testimonial dinner to Dr. Yves-René Naves of Givaudan et Cie, Geneva, Switzerland, 1952 Gold Medal—$1000 Fritzsche Award winner, given by F. H. Leonhardt, president of the donor firm, Fritzsche Brothers, Inc., New York. Seated around the table (reading from extreme right, counterclockwise): Joseph A. Huisking, H. P. Wesemann, Ernest Durrer, Mr. Leonhardt, Dr. Naves, Dr. Ernest Guenther, Dr. Max Luthy, Dr. E. H. Hamann, Frederick Richter, D. A. Neary, G. A. Wohlfort, B. F. Zimmer, R. W. Wilmer, John L. Cassullo, Fred H. Leonhardt, Jr., Arthur Hemminger and E. E. Langenau.



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Cosmetic Chemists to Meet

The spring meeting of the Society of Cosmetic Chemists will be held May 15 at the Biltmore Hotel, New York. Papers to be read include those on the following subjects: Evaluating sensory reactions in numbers instead of in adjectives; Toxicity of a new permanent hair wave neutralizer; Tracer chemistry pertaining to topical ointments; Modern methods of scar removal; Loss of hair and its regeneration by use of certain chemicals.

The date of the Society's December meeting has been changed from December 4 to 11.

Sluys Changes Firm Names

N. V. Chemical Works, Boechout, Belgium, announced recently it had changed its name to N. V. Sluys Boechout in order to link the name of its founder and president, K. Sluys, with the country where the firm was organized. Associated companies in the Netherlands and the United States are now known as N. V. Sluys Roosendaal and Sluys Rockford, Inc., respectively. The American plant, located in Rockford, Mich., operates under Henry Schuyten, vice-president; Rene Schuyten, sales manager, and William Schuyten, plant manager.

Kiefer Bulletin Issued

Karl Kiefer Machine Co., Cincinnati, recently issued the spring edition of its house organ "Kiefer Calling." It gives background information concerning the company and some members of its staff, and features an unusual arrangement of two completely synchronized bottling lines.

SAACI Fite Nite

The annual Fite Nite of the Salesmen's Association of the American Chemical Industry will take place April 17, at the Downtown Athletic Club, New York. Dinner will be served at 6:30, the bouts start at 8:30. V. L. Rebak, Heyden Chemical Corp., New York, is chairman of the entertainment committee.

SAACI's golf dates for the season are as follows: June 17, Bonnie Briar Country Club, Larchmont, N. Y.; July 8, Baltusrol Country Club, Springfield, N. J.; August 12, Nassau Country Club, Glen Cove, L. I.; and September 16, Montclair Golf Club, Montclair, N. J.

Colonel Samuel N. Cummings, president of Pylam Products Corp., New York, (left), receiving the New York-New Jersey subarea certificate of achievement in recognition of outstanding service as commanding officer of the 9721st organized reserve training service unit. Colonel H. A. Cooney, chief of the New York Military district, made the award during a recent reserve meeting at the ORC Armory, New York.

Unilever Ltd. Name Change

At an extraordinary general meeting held recently at Unilever House, London, a special resolution was submitted to change the name of Lever Brothers & Unilever Ltd., to Unilever Ltd. A similar resolution is being submitted in Rotterdam to change the name of the Dutch parent company to Unilever N.V. The use of the words "Lever Brothers" and "Unilever" together tended to lead to confusion, and the directors have decided to make the name of the parent company simple, distinctive and unambiguous.

Lever Brothers, Ltd. was incorporated in 1894 to acquire the business carried on at Port Sunlight and elsewhere by a private company of the same name which had been incorporated four years earlier. In 1927 Van den Berghs merged with Jurgens and formed Margarine Union Limited in England and N.V. Margarine Unie in Holland.

In 1930 Margarine Union Ltd. acquired all ordinary shares of Lever Brothers Ltd. and changed its name to Unilever Limited in England and in Holland the name became Unilever N.V.

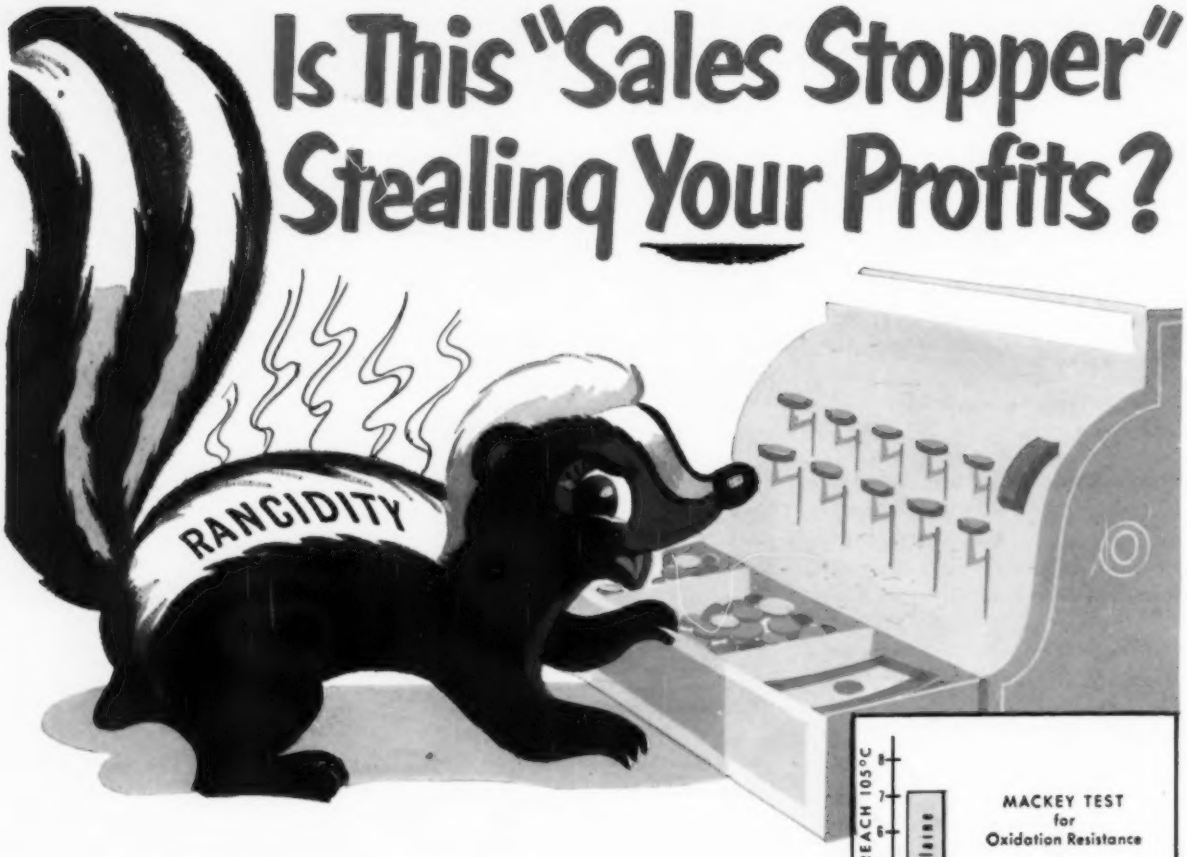
In 1937, the present structure was formed. Unilever was acquired by Lever Brothers, Ltd., the name of which was changed to Lever Brothers & Unilever Limited; Unilever N.V. became Lever Brothers & Unilever N.V. The assets of both companies were divided territorially; broadly speaking the English company was allotted those in the United Kingdom and the British Empire; the Dutch company, those on the continent of Europe and all overseas countries outside the British Empire.

The name Lever Brothers, however will not disappear. It is retained in the United Kingdom in the title of the company which markets the Lever brands, and in that of the manufacturing company at Port Sunlight, Lever Brothers, Port Sunlight Limited. The Lever name will also continue to be used as at present by many associated companies overseas.

Fritzsche Issues New List

A revised wholesale price list for April for its line of essential oils, aromatic chemicals and allied materials, has just been published by Fritzsche Brothers, Inc., New York.

Is This "Sales Stopper" Stealing Your Profits?



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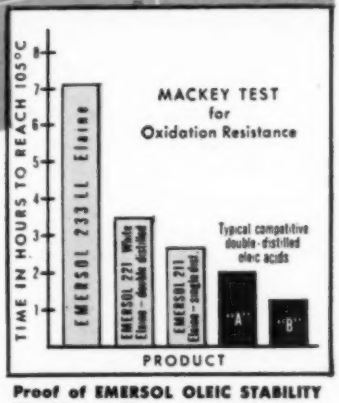
Offensive, rancid odors in your products can destroy sales and profits. Don't let this happen to you . . . buy Emersol Stearic and Oleic Acids and keep your products as fresh and appealing as the day they were made.

Manufacturers in ever-increasing numbers have discovered that the outstanding color and oxidation stability of Emery Fatty Acids really guard freshness and sales appeal. Some of the finest products in America now look better, keep better and sell better because of Emery Fatty Acids. Take advantage of these extra values . . . find out how they can make your products better, stay better longer!



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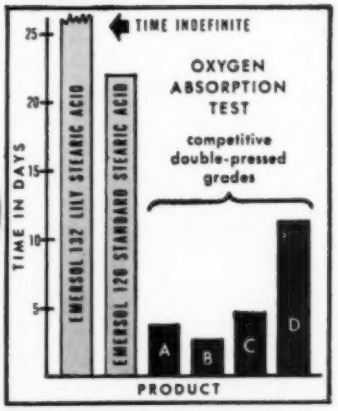

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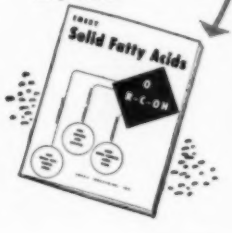

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187 Perry St., Lowell, Mass.
221 N. LaSalle St., Chicago 1, Ill.
420 Market St., San Francisco 11, Calif.

Representatives:
Schibley & Ossmann, Inc., 33 Public Square, Cleveland 13, Ohio
Ecclestone Chemical Co., 2673 Guoin, Detroit 7, Michigan
Warehouse stocks also in St. Louis, Buffalo, Baltimore and Los Angeles.

Soapers Among Largest Premium Users

THE annual tabulation of sales promoting premium offers and prize contests used during 1951 by all types of business concerns reveals that two soap manufacturers, Procter & Gamble Co., Cincinnati, and Lever Brothers Co., New York, were among the six firms making the largest number of premium offers. P. & G., according to the list, made 19 offers and was exceeded by only two other firms, both in the food field. Lever Brothers with 14 offers, was sixth on the list of top premium users. Both companies also appear in the list of firms that conducted contests of various kinds in addition to giving merchandise for their products.

The compilation was published in the magazine *Premium Practice and Business Promotion*, and represents only promotions reported in that trade publication during 1951.

All offers last year totaled 909, the magazine says, of which 716 involved merchandise and assorted items and 193 were contests. Give aways ranged from greeting cards to washing machines, television-radio combinations or automobiles, together with cash gifts such as a Colgate-Palmolive-Peet Co., Jersey City, N. J., offer of various sums from $25,000 down to $10.

B. T. Babbitt, Inc., New York, credited with initiating the practice of giving premiums as sales stimulators back in 1851, was represented again in this year's list of premium users, with much the same type of premium first used by Babbitt. The firm's first premium, a century ago, was a lithographed picture card, given for a wrapper from their new "Babbitt's Best" soap in individual cake form. Last year it was a set of lithographed birthday cards and anniversary book, for one label from "Bab-O" cleanser, plus 50 cents.

The magazine's analysis indicated that the largest single group of offers was the so-called "self liquidating" variety, involving an item for cash plus purchase tokens. This type numbered 339. Last year, too, it was noted that "Games, Toys and Sporting Goods" led the premium classification, moving ahead of "Kitchenware, General," which has been the most popular class of items offered for many previous years.

In a review of "How Premiums Work," the Premium Advertising Association of America, sponsors of the Chicago show, quoted David B. Pickering, premium buyer for Colgate-Palmolive-Peet Co., among others, as follows, on how premiums meet sales needs:

"The premium is a great aid in (1) maintaining consumer brand loyalty; (2) introducing new products or opening new sales territory; (3) boosting sales of slow-moving products or evening off sales in normally slow seasons; (4) meeting competitive efforts; (5) maintaining the retail price structure."

C-P-P, incidentally, has been using premiums since around 1880, when Colgate & Co., as it was then known, offered a premium coupon with its "Bee" soap and washing powder. Another old timer mentioned in the industry's annals, is Larkin Soap Co., Buffalo, N. Y., which embarked on its famous premium scheme to sell more soap, in 1880.

According to the magazine's detailed tabulation, the following firms in the soap and sanitary chemical field used premiums during 1951:

Armour & Co., B. T. Babbitt, Inc., Boyle-Midway, Inc., Brillo Mfg. Co., Brookfield Labs., E. L. Bruce Co., Climalene Co., Colgate-Palmolive-Peet Co., Cudahy Packing Co., d-Con Co., Diaperwite Inc., Dif Corp., Dunaway Corp., Dusorb Corp., Eavenson & Sons, Economics Lab., Inc., Embree Mfg. Co., Foster Bros., Co., Hood Chemical Co., Iowa Soap Co., S. C. Johnson & Son, Inc., Kendall Mfg. Co., Lever Bros. Co., Linco Products & Distributing Co., Manhattan Soap Co., Mennen Co., Milner Products Co., Perfex Mfg. Co., Procter & Gamble Co., West Coast Soap Co., White King Soap Co., White Flash Cleanser Co., John H. Woodbury, Inc., Allen B. Wrisley Co. Contests were also conducted by Procter & Gamble Co., Lever Bros. Co., S. C. Johnson & Son, Inc. Mennen Co., Oakite Products, Inc., Colgate-Palmolive-Peet Co. and White King Soap Co.

—— ♦ ——

Norway Soap Output

Annual soap production in Norway is about 30,000 tons according to E. Hvoslef Eide in a recent issue of *Chemical Trade Journal*.

Steam Cleaners

(*From Page* 33)

4) Anon.: *Occup. Hazards* 13:34, Quartz Co., Phila., Pa.): Personal communication
13) Shelley, J. D. M. (Solvay Sales Div., Allied Chemical & Dye Corp., New York, N. Y.): Personal communication
14) Morgan, O. M. (National Aniline Div., Allied Chemical & Dye Corp., New York, N. Y.): Personal communication.

Soapmaking

(*From Page* 49)

urated C_6 to C_{12} acids distill unchanged and, if the amount of bottoms that will be taken off is known, then a corresponding adjustment can be made to the quantity of oils high in lauric acids that is used. Taking as an example, the same toilet soap blend that was quoted above in the paragraph dealing with saponification, and applying these corrections, the modified formula would be 71.4 percent palm oil, 18.4 percent coconut oil and 10.2 percent peanut oil. Though this argument is close enough for practical purposes, there are several inaccuracies in it. For one thing, it ignores the presence of zinc soap in the bottoms, which will "fix" the saturated equally with the unsaturated acids. It is, therefore, not true to argue that all the former will be in the distillate.

Possibly the main advantage which the continuous process possesses is the flexibility that it confers on a soap factory. An entirely new outlook on scheduling is called for, when we find soap in the package eight hours after the oils, from which it is made, were taken out of stock; or when three different brands of soap are produced in twenty-four hours from the same equipment.

American Distilled Oils

Produced at our Brooklyn Factory

OILS

CLOVE	BALSAM PERU	OPOPONAX
NUTMEG	CELERY	PIMENTO
ORRIS LIQUID, Conc.	GERANIOL	OLIBANUM
STYRAX	CITRONELLOL	SANDALWOOD
CASCARILLA		PATCHOULY

also ***LINALOOL*** • ***CITRAL*** • ***EUGENOL*** • ***RHODINOL***

RESIN LIQUIDS

OLIBANUM		STYRAX
LABDANUM		BALSAM PERU
OPOPONAX		BALSAM TOLU
ORRIS	BENZOIN	TONKA

Essential Oils • *Aromatic Chemicals* • *Perfume Materials* • *Colors*

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REGISTERED TRADE MARK

GEORGE LUEDERS & CO.

427 WASHINGTON ST., NEW YORK 13, N. Y.

Chicago • San Francisco • Montreal • Philadelphia • Toronto

Established 1885

NEW Trade Marks

THE following trade marks are published in compliance with section 12(a) of the Trade Mark Act of 1946. Notice of opposition must be filed within 30 days of publication and a fee of $25 must accompany each notice of opposition.

Ev-R-Glo—This for self-polishing waxes. Filed Oct. 7, 1949 by Midland Laboratories, Dubuque, Ia. Claims use since Apr. 8, 1938.

So-E-Z—This for dry cleaning and spot and stain removing preparation. Filed Feb. 10, 1949 by H. D. Dunaway and Co., Atlanta. Claims use since 1944.

Disolvsoot—This for soot removing chemical. Filed Nov. 19, 1949 by Chemical Testing Institute of America, Inc., Long Island City, N. Y. Claims use since June 1941.

Botany Mills — This for soap. Filed July 1, 1950 by Botany Mills, Inc., Passaic, N. J. Claims use since May 17, 1950.

Sing—This for shampoo. Filed July 28, 1950 by Cynthia Andrews, Inc., New York. Claims use since July 6, 1950.

Car-A-Sol—This for emulsifiable solvent solution for cleaning by immersion of internal combustion machines. Filed July 29, 1950 by Whitfield Chemical Co., Detroit. Claims use since July 11, 1949.

Jig-Time—This for comb cleaning preparation. Filed Mar. 15, 1951 by C. F. Clothier and Co., Baltimore. Claims use since Mar. 6, 1951.

Transol—This for sulphonated liquid hand cleaner. Filed June 6, 1951 by Lightfoot Schultz Co., New York. Claims use since Mar. 10, 1930.

Flobar — This for liquid soap dispensers. Filed Aug. 2, 1949 by Flo-Bar, Ltd., New York. Claims use since July 26, 1949.

Bath Bouquet — For portable soap flake dispensers. Filed Apr. 24, 1950 by Harper J. Ransburg Co., Inc., Indianapolis, Ind. Claims use since June 1949.

Franklin's—This for wax. Filed May 27, 1949 by Franklin Research Co., Philadelphia. Claims use since Apr. 1940.

Fogosect—This for aerosol type insecticide. Filed Nov. 14, 1949 by Spray, Inc., East Orange, N. J. Claims use since Dec. 1, 1948.

Pine Maid—This for household disinfectant. Filed May 12, 1950 by Polk Miller Products Corp., Richmond, Va. Claims use since Mar. 27, 1950.

Spray-Trol—This for insecticides. Filed July 20, 1950 by Coyne Chemical Co., Los Angeles, Calif. Claims use since June 19, 1950.

Exodr—This for household deodorant powder. Filed July 20, 1950 by Bickmore Co., Old Town, Me. Claims use since May 17, 1946.

Pastoxine — This for rodenticide. Filed Nov. 16, 1950 by Astor Exterminating Co., Boston. Claims use since Mar. 19, 1949.

Aldrex 2—This for insecticide. Filed May 15, 1950 by Shell Chemical Corp., New York. Claims use since Dec. 15, 1950.

Sixide — This for insecticides. Filed May 17, 1950 by Commercial Solvents Corp., New York. Claims use since May 11, 1950.

Pennsalt—This for soaps and detergents. Filed June 23, 1948 by Pennsylvania Salt Manufacturing Co., Philadelphia, Penn. Claims use since Oct. 29, 1946.

Star Mist—This for shampoo. Filed Jan. 26, 1950 by Helene Curtis Industries, Inc., Chicago. Claims use since Dec. 7, 1949.

Tenodex—This for metal cleaning chemicals. Filed Feb. 17, 1950 by Monsanto Chemical Co., St. Louis. Claims use since Dec. 13, 1949.

Atalco—This for soaps and detergents for general use in industrial art. Filed May 6, 1949 by American Alcolac Corp., New York. Claims use since May 16, 1949.

Target—This for insecticides, disinfectants, deodorants, pipe coil and drain cleaners, lye, and germicides. Filed August 21, 1945 by Chemical Manufacturing & Distributinting Co., Easton, Pa. Claims use since March 1, 1940.

Varsity—This for auto soap. Filed May 5, 1950 by Varsity Products Co., Philadelphia, Pa. Claims use since May 1, 1929.

Kem-Air—This for metal containers filled with a combination of chemicals for humidity control for refrigerators and for air conditioners. Filed July 14, 1950 by E. A. Aldridge Inc., Los Angeles, Calif. Claims use since March 1, 1939.

Surphos — This for slightly acid mixture of metallic phosphates and wetting agents in powder form having incidental rust inhibiting properties and adapted to be applied to the surface of metal to clean and prepare it for painting. Filed October 6, 1949 by Industrial Chemical Products Co., Detroit, Mich. Claims use since September 26, 1949.

Glaze-All — This for auto cleaning and glazing wax. Filed April 24, 1950 by Glaze-All Corp., Chicago, Ill. Claims use since November 20, 1948.

Rolcas—This for floor polishing wax — namely paste floor wax and liquid floor wax. Filed August 29, 1950 by Brantford Industries, Ltd., Brantford, Ontario, Canada. Claims ownership of Canadian registration dated October 9, 1948.

Hydrosol — This for cresylic acid, red oil mixture used primarily for scouring of all classes of textile materials. Filed January 4, 1950 by Laurel Soap Manufacturing Co., Philadelphia, Pa. Claims use since 1921.

Bocats—This for quaternary ammonium tablets for use in sanitizing, deodorizing, and disinfecting eating and drinking utensils, food industry equipment, etc. Filed July 26, 1951 by Virginia-Carolina Chemical Corp., Richmond, Va. Claims use since March 31, 1949.

Colonial—This for brass and silver polishes. Filed March 25, 1949, by Colonial Chemical Co., Seattle, Wash. Claims use since June 1, 1934.

Sexton—This for floor, furniture and metal polishes. Filed May 12, 1949 by John Sexton & Co., Chicago. Claims use since March 1944.

Fli-Pel — This for repellent for flies and insects. Filed September 15, 1950 by United Enterprises, Inc., Chicago. Claims use since July 10, 1950.

Sparks—This for hand cleaner. Filed October 22, 1948 by Viscosity Oil Co., Chicago. Claims use since July 15, 1947.

Guardian Service — This for general cleaning compound comprising granular material and soap. Filed February 7, 1949 by Century Metalcraft Corp., Los Angeles, Calif. Claims use since January 1939.

Erad-Ink—This for spotting compound for removal of writing inks, fruit stains, etc. Filed October 8, 1949 by A. L. Wilson Chemical Co., Kearny, N. J. Claims use since June 13, 1949.

Popular Girl—This for soap, saponaceous preparation for making a foaming bath and shampoo. Filed August 23, 1949 by John N. MacMath Co., New York. Claims use since December 1937.

SFX—This for shampoo preparation for care of hair and scalp. Filed February 24, 1950 by Joseph Pecora, Buffalo, N. Y. Claims use since June 1936.

Cocoroco — This for toilet soaps. Filed February 27, 1950 by Les Parfums de Dana, New York. Claims use since January 31, 1950.

Polyfax — This for cleaners, cleaning compounds, and preparations. Filed March 17, 1950 by Dearborn Chemical Co., Chicago. Claims use since July 1932.

Honey Oil—This for shampoo. Filed March 27, 1950 by Golden Glint Co., Seattle, Wash. Claims use since January 4, 1948.

Chic — This for cleaner, cleanser, and detergent. Filed January 12, 1951, by Procter & Gamble Co., Cincinnati. Claims use since April 11, 1897.

Dethmor — This for rodenticides. Filed January 7, 1950 by S. B. Penick & Co., New York. Claims use since October 24, 1949.

ARE YOU READY?

Are you ready to sell your customers the finest in a built synthetic detergent in spray dried bead form? The answer is "yes" when you offer them . . .

SULFRAMIN* BUILT BEADS

Based on 30% Dodecyl Benzine Sulfonate.
Fortified with complex phosphates.
Balanced with the proper amount of CMC.
Blended with a great white dyestuff.
Inhibited against corrosion of silver and monel metals.

SULFRAMIN* BUILT BEADS are setting a new standard for detergents in the restaurant, institutional and laundry field.

PACKED
Bags — 50-lb.-multiwall paper
Drums — 41-gal. — 90 lbs. net.
Drums — 55-gal. — 130 lbs. net.

WIRE, WRITE or PHONE for your sample and prices today

SULFRAMIN* AB-40 FLAKES
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SULFRAMIN* E LIQUID
SULFRAMIN* SPRAY BEADS

SULFRAMIN* AB CONCENTRATE FLAKES
SULFRAMIN* AB CONCENTRATE POWDER
SULFRAMIN* KE LIQUID
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ULTRA CHEMICAL WORKS, INC.

PATERSON, N. J. • LOS ANGELES, CALIF. • JOLIET, ILL.

ULTRA Chemical WORKS

ULTRA is the home of the world's finest bulk waxes. Available from 3 shipping points. Write or wire for prices.

Bids and AWARDS

FSS Wax Award to Trio

In a recent opening for miscellaneous supplies by the Federal Supply Service, New York, Trio Chemical Works, Brooklyn, received the award on 31,530 gallons of wax with a bid of $20,282.

G.I. Soap Awards

In a recent opening for miscellaneous supplies by the Quartermaster Purchasing Office, Fort Jackson, S. C., the following firms received awards on bids for varying quantities of G.I. soap: Colgate-Palmolive-Peet Co., Jersey City, bid $91,897 on 1,436,080 bars; Procter & Gamble Co., Cincinnati, bid $40,760 on 563,920 bars; National Soap & Chemical Co., Tacoma, Wash., bid $63,368 on 1,080,320 bars; Mount Hood Soap Company, Portland, Ore., bid $31,139 on 460,640 bars; Haskins Brothers & Co., Omaha, Nebr., bid $129,047 on 1,792,320 bars; Gillam Soap Works, Fort Worth, Tex., bid $83,566 on 1,450,800 bars; Lever Brothers Co., New York, bid $40,878 on 563,920 bars; Newell-Gutradt Co., San Francisco, bid $33,900 on 600,000 bars; and Pioneer Soap Co., San Francisco, bid $53,820 on 900,000 bars.

Low Laundry Soap Bids

Low bids on 910,000 pounds of laundry soap for a, Newport; b, Philadelphia; c, Norfolk; d, Charleston, S. C.; e, Cherry Point, N. C.; f, Yukon, Fla.; g, Flour Bluff, Tex.; h, Great Lakes, Ill.; i, San Diego; j, San Pedro; k, Oakland, in a recent opening for miscellaneous supplies by the Navy Purchasing Office, New York, were submitted by: Procter & Gamble Co., Cincinnati on destination a, 8.01 cents; by Sterling Supply Corp., Philadelphia, on destinations b, c, and d, with 7.63 cents, 8.03 cents, and 8.43 cents, respectively; Swift & Co., Chicago for destinations e, f, and g with 8.61 cents, 8.71 cents, and 8.91 cents respectively; Armour & Co., Chicago, and Fitzpatrick Brothers, Chicago, for destination h, 7.76 cents; Pioneer Soap Co., San Francisco, on destinations i, j, and k, with 8.51 cents, 8.74 cents, and 8.1 cents, respectively.

FSS Disinfectant Award

In a recent opening for miscellaneous supplies by the Federal Supply Service, Washington, Standard Products Co., Philadelphia, received the award on 4,580 gallons of disinfectant with a bid of 54 cents per gallon on item 1, 49 cents per gallon on item 2, and 44 cents per gallon on item 3.

Navy Trichlorethylene Bids

Low bids on 18,800 gallons of trichlorethylene for a, Newport; b, Bayonne; c, San Diego; d, Oakland, in a recent opening for miscellaneous supplies by the Navy Purchasing Office, New York, were submitted by Cole Laboratories, Inc., Long Island City, N. Y., on destination a, $1.56; on destination b, $1.50; on destination c, $1.87; on destination d, $1.67; and f.o.b. Long Island City, $1.50.

Air Force Award to Starco

Starco Chemical Co., Houston, Tex., received the award on carbon removal compound with a bid of $132,725 in a recent opening for miscellaneous supplies by Wright-Patterson Air Materiel Command, Dayton, O.

Chicago FSS Wax Award

The award on 16,144 gallons of water emulsion floor wax went to National Chemical Research Laboratory, Chicago, with a bid of $10,566 in a recent opening for miscellaneous supplies by the Federal Supply Service, Chicago.

Navy Insecticide Awards

In a recent opening for miscellaneous supplies by the Navy Purchasing Office, New York, the following firms received awards for various insecticides: Food Machinery & Chemical Corp., Niagara Division, Middleport, N. Y., on 10,045 gallons of lindane insecticide with a bid of $107,240; J. R. Watkins Co., Winona, Minn., on 80,000 gallons of spray insecticide with a bid of $39,880; De Greeve & Co., San Francisco, on 150,045 gallons of liquid insecticide with a bid of $169,177; Wyandotte Chemicals Corp., Los Angeles, on 964,636 gallons of spray insecticide with a bid of $554,665; and Miller Products Co., Portland, Ore., on 16,875 pounds of 75 percent lindane and 113,364 gallons of spray insecticide with a bid of $149,913.

QM Award to Harrison

Harrison Products Co., San Francisco, received the award on 10,780,000 bottles of water purification tablets with a bid of $231,338 in a recent opening for miscellaneous supplies by the Quartermaster Purchasing Office, Chicago.

FSS Soap Bids

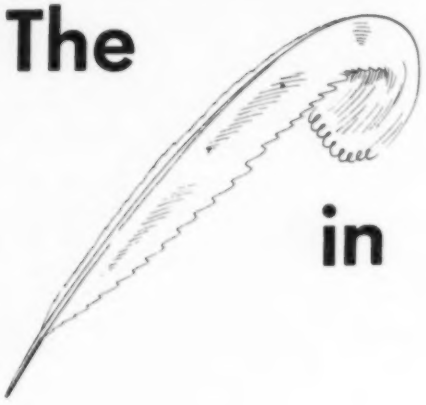
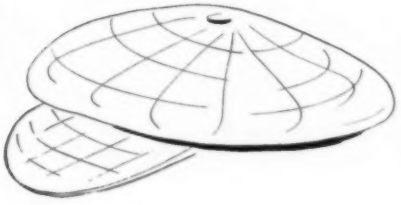
The following low bids were received in a recent opening for miscellaneous supplies by the Federal Supply Service, New York: item 1, 12,000 pounds of soap powder, Kamen Soap Products Co., New York, 5.4 cents; item 2, 90 drums of liquid toilet soap, Crystal Soap & Chemical Co., Philadelphia, $16.69.

Liquid Detergent Award

The award on 238,000 unspecified units of surgical liquid detergent went to Winthrop-Stearns, New York, with a bid of $124,176 in a recent opening for miscellaneous supplies by the Armed Services Medical Procurement Agency, Brooklyn, N. Y.

Salt Water Soap Bids

Low bids on 180,000 pounds of salt water soap for a, Norfolk; b, San Diego; and c, Oakland, in a recent opening for miscellaneous supplies by the Navy Purchasing Office, New York, were submitted by: Kamen Soap Products Co., New York on destination a, 20.9 cents; Young's Soap and Chemical Manufacturing Co., Philadelphia, on destinations b and c, 21.63 cents.

The  in our 

PLURAMINE* SS-100

The aristocrat of our PLURA-PRODUCTS

The soaring sales of our PLURAMINE SS-100 prove conclusively that its outstanding characteristics:

Profuse Foamer, Emulsifier, Penetrator, Wetting and Dispersing Agent, Detergent, Hard Water Resistant

are the best answers to many problems.

PLURAMINE SS-100 is the ideal basic ingredient for Shampoo, Bubble Bath and other high quality toilet preparations; also for liquid Hand Soaps, Pine Scrub Soaps, Metal Polishes and a large variety of other high-grade compounds.

For top efficiency your product needs —

PLURAMINE SS-100

Ask for literature, samples and price information.

KEARNY
MANUFACTURING COMPANY, INC.

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* Reg. U. S. Pat. Off.

ARE YOU SATISFIED WITH THE PERFUME IN YOUR...

LIQUID SOAPS?

DOES IT add a *plus* to your profit margin?
Is the odor all it could be
for the price you pay?
If the answer to these questions
is "NO", then perhaps
we have something of interest for you . . .
something in the nature of compounds
specially made for the purpose
. . . powerful, appealing
and fully soluble in weak dilutions.
As a primary source of many of the
essential ingredients composing
these fragrances,
we are in a position to provide you
a type of odor that will meet your needs
at a price you can afford to pay.
Our technical assistance in developing
a more satisfactory fragrance
for your product
is yours upon request
—freely and without obligation.

ALSO
PERFUME
SPECIALTIES
FOR:

AEROSOLS
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FRITZSCHE *Established* 1871
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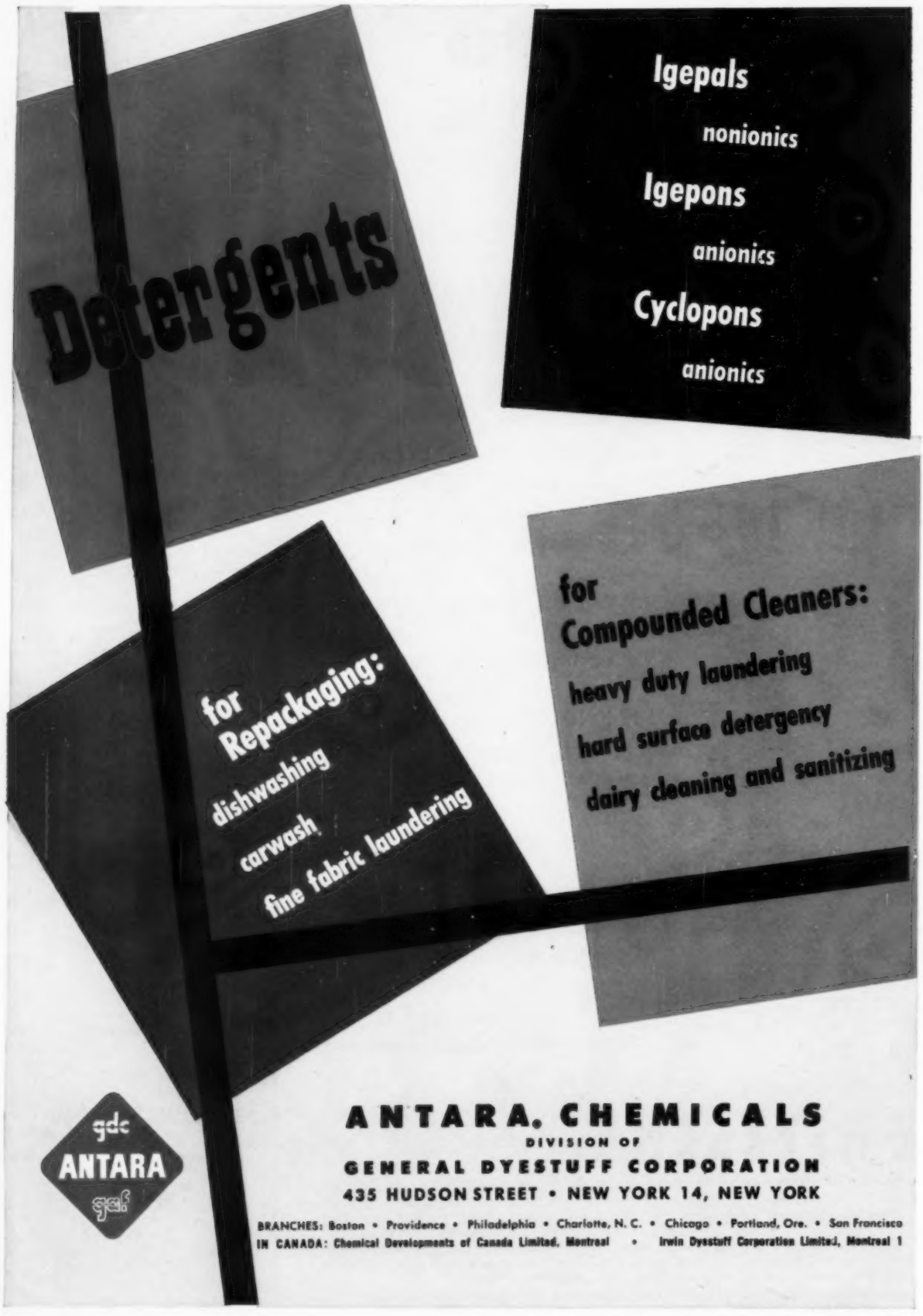
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carwash
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Want to attract more customers? Increase the sales appeal of cleaners and washing compounds with the attractive, hard-working Metso Detergent. Your entire organization will profit from the use of Metso.

Sales **—Cleaners and detergents in your line earn buyer preference by attractive appearance, effective performance, and economy.**

Production department **—Metso's uniform quality makes it easy to control formulas. Packaging in 100 lb. bags and in re-usable fibre drums is also a convenience.**

Laboratory **—Metso is versatile; it's good for so many different formulas. A good mixer too for soaps, complex phosphates, synthetic detergents and other alkalies. Balanced soluble silica protects sensitive surfaces and prevents redeposition of dirt.**

Send for free bulletins:

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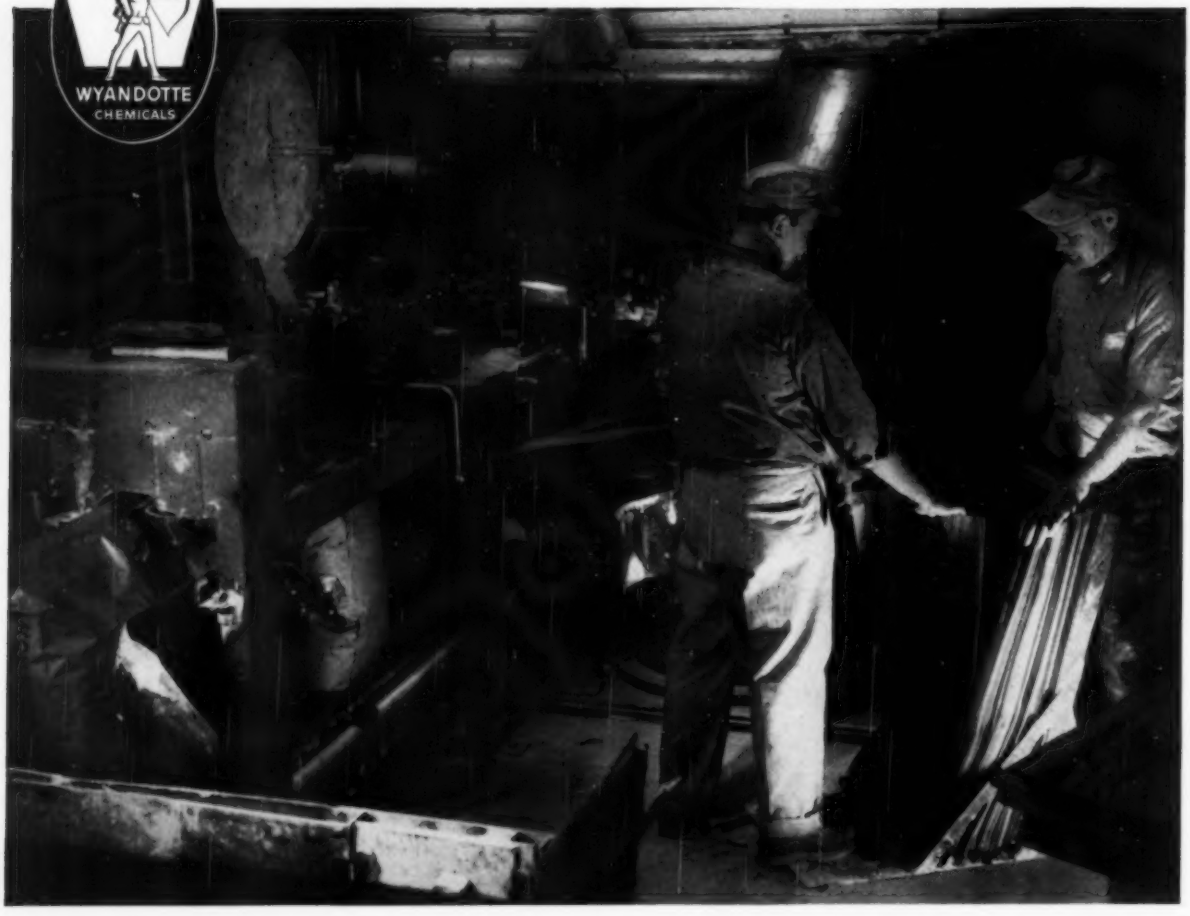
- PQ Soluble Silicates, Lump & Powder Forms

PHILADELPHIA QUARTZ COMPANY
1152 Public Ledger Bldg., Philadelphia 6, Pa.

Metso® Detergents

WYANDOTTE CHEMICALS

Dependable Source For Chemical Raw Materials



Bulletin Board

Kreelon*®:
Most comment from compounders on newly improved Kreelon (an alkylarylsulfonate detergent) has to do with **its more rapid solubility.** Ask for our new booklet.

New Pluronics*®:
You'll want to look into this **first 100%-active flake nonionic ever commercially available.** It's another Wyandotte first. Samples and literature available.

Chlorine:
Already an important supplier of chlorine to the bleach industry, Wyandotte is currently expanding its chlorine facilities to help supply the requirements of this industry. Consult us about future needs.

Caustic:
Whether your soap process is continuous or batch kettle . . . whether you manufacture detergents or bleaches, Wyandotte has a grade of caustic that will satisfy your needs. Samples and quotations are available upon request.

Carbose*®:
If emollient characteristics are important to your product, investigate Wyandotte Carbose . . . a grade of sodium CMC specifically developed as a detergent promoter. Carbose promotes long-lasting suds and reduces skin irritation. Ask for samples . . . test it!

Wyandotte Soda Ash: The supply is reliable!

In periods of long or short supply, Wyandotte has the reputation — *and the means* — of taking care of its customers. Here's why it pays to rely on Wyandotte:

Salt wells, limestone quarries, and coal mines, *owned and operated by Wyandotte*, assure adequate raw materials.

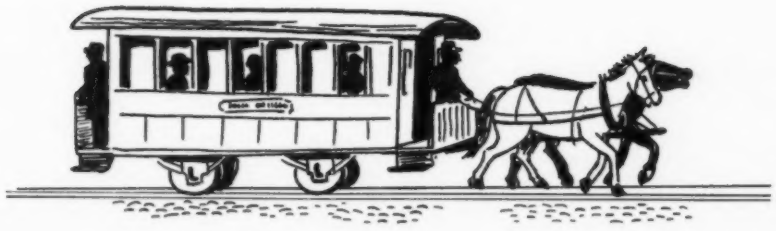
Central location of resources and manufacturing facilities on one of the world's great waterways, on major railroads, and several major truck lines, assures the supply's reaching *you*.

Current expansion of soda ash production facilities means that the supply — adequate now — will be still more able to meet your needs in the future.

This holds for other chemicals you're interested in, too: read the "Bulletin Board" for up-to-the-minute facts on them. And for further information, write — *Wyandotte Chemicals Corporation, Wyandotte, Michigan. Offices in Principal Cities.* *REG. U.S. PAT. OFF.

Wyandotte CHEMICALS

FOR SOAPS AND DETERGENTS



Since the Days of the "Horse Car"...

CHECK YOUR NEEDS FROM THIS LIST

VEGETABLE OILS

Babassu
Castor
Cocoanut
Corn
Cottonseed
Olive
Palm
Peanut
Sesame
Soybean

ANIMAL FATS

Sperm Oil
Oleo Stearine
Lard Oil
Neatsfoot Oil
Grease
Tallow
Lanolin

FATTY ACIDS

Red Oil
Tall Oil-
Stearic Acid
Hydrogenated Fatty Acid
Cottonseed and Soybean
Fatty Acids
Tallow

ALKALIES

Caustic Soda, Solid, Liquid, and Flake
Soda Ash, Light and Dense
Carbonate of Potash, calcined and hydrated
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Tetra Pyro Phosphate
Quadrafos Granular and Beads—a stable polyphosphate for water conditioning and mild but effective detergency.

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SILICATE OF SODA—Liquid powdered and solid.

META SILICATE—"Metso"* Granular.

METSO* DETERGENTS—55, 66, 99.

MAYPONS—Unique surface active agents; prolific foam; high detergency and emulsifying powders; suitable for cosmetic and industrial use.

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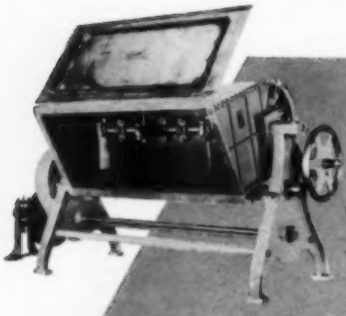
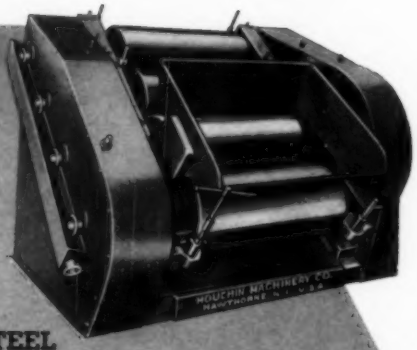
6 MACHINES IMPORTANT IN—

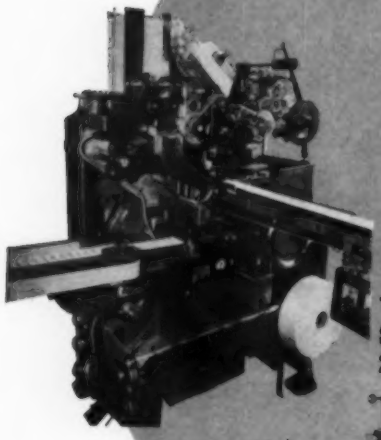
SOAP MAKING

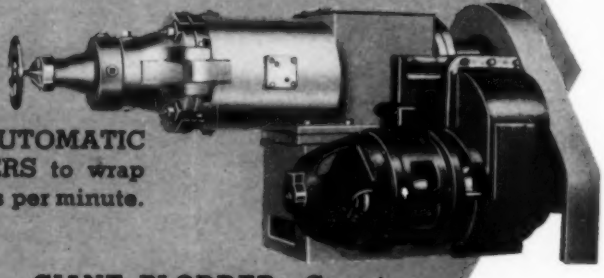


TILTING AMALGAMATOR
Other types available.



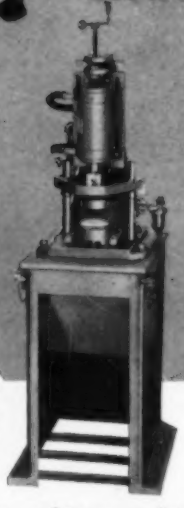
TYPE E STEEL ROLL MILL
With 18″ x 40″ water cooled rolls.



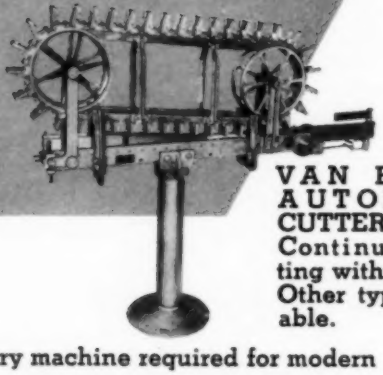


VAN BUREN AUTOMATIC SOAP WRAPPERS to wrap 200 to 300 cakes per minute.

GIANT PLODDER—Capacity 4000 to 6000 pounds per hour.



SAFETY AIR PRESS
Easier to operate. Produces consistently uniform cakes.



VAN BUREN AUTOMATIC CUTTER—
Continuous cutting without scrap. Other types available.

Houchin soap making machines include every machine required for modern soap manufacture. Available individually or in complete production ranges.

HOUCHIN MACHINERY CO., INC.

Sixth & Van Winkle Avenues **Hawthorne, New Jersey, U. S. A.**

Manufacturers of Soap Making Machinery for over Three-Quarters of a Century

Sulfated Alcohol vs. Soap

RELATIVE merits in commercial laundering of Teepol sulfated alcohols versus soap are discussed in a recent issue of *La Revue des Produits Chimiques*. Teepol originated with the Royal Dutch Shell Co. in Amsterdam. It was put into commercial production early in World War II, first in the Stanlow plant in England and later in Pernis, Holland.

"Teepol' belongs to a group of sulfated alcohols, esters of higher secondary alcohols, of which Carbide's "Tergitols" were early members. It is an anionic type surface active agent, which can function as wetting agent, detergent, foaming agent, emulsifier, and dispersant. A yellow liquid, it is water miscible with a density of about 1.06. It does not precipitate in hard water; and may be employed in acid, alkaline, or neutral media, as well as in the presence of mineral salts and oxidizing agents such as hydrogen peroxide, or hypochlorites. Impervious to oxidation, "Teepol" does not become rancid, nor does it acquire an odor.

"Teepol's" field of application is domestic as well as industrial. It may be used in varying concentrations for cleaning leather chairs, rugs, dishes (by hand or machine), painted and glazed surfaces on wood, and in home laundering of cottons and woolens. It is used in the food industry to clean equipment, in garages, where twenty kilos are said to suffice for the washing of 500 cars, and in industrial cleaning establishments. It acts as an emulsifier in cosmetic creams and shampoos, and as a wetting agent in insecticides.

Extensive and systematic studies on the use of "Teepol" with various builders in the commercial washing of textiles were made by Steupel and Segresser at the Swiss Government Laboratory for Materials Testing (Staatliche Materialpruefungsanstalt). In tests in the laboratory washing machine, the following mixture was developed and designated TXI:

per cent	
10.00	Teepol (at 100%)
7.50	Sodium pyrophosphate
7.50	Sodium tripolyphosphate
5.00	Sodium perborate
5.00	Sodium metasilicate
1.00	Carboxymethylcellulose
0.01	Bleaching agent
63.99	Sodium sulfate, calcined
100.00	per cent

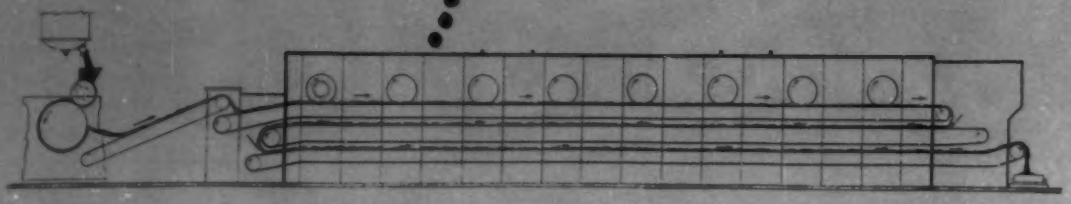
This "activated Teepol" is affected only slightly by water hardness, and exhibits maximum increase in whiteness of 60 percent at a concentration of one percent, whereas soft soap, soap flakes, and granulated soap at comparable concentrations show detergencies of 50 percent, 50 percent, and 42 percent, respectively. The curve for TXI drops rapidly after the maximum has been passed, whereas the curves for soaps rise gradually, pass a maximum, and drop or flatten out up to concentrations of 8 percent.

Practical tests were carried out in a cylindrical washing machine of Wyss Co., Switzerland, with a capacity of 50 litres for the bath and ten kilos of laundry. The latter was submitted to a preliminary 30-minute soaking in 50 grams of TXI in 50 litres of water of 9° hardness. Then the wash was wrung out and laundered in the machine in a bath of 500 grams of TXI in 50 litres of water. The fabrics were washed in temperatures from 15° C to 90°C for the first 30 minutes, and then boiled (95° to 98°C) for an additional ten minutes.

The following results were observed for TXI and a special soap powder: increase in whiteness for TXI was 78 percent, for soap 72 percent. Visual examination did not disclose the same difference in whiteness as observed in laboratory test. But approximately the same detergency was obtained with a bath of ten percent TXI, as is obtained with a soap of 30 percent fat content and softening of water with a mixture of 40 percent sodium carbonate and approximately five percent sodium silicate.

TXI appears to offer considerable advantages in the laundering of very greasy materials. Ink stains were completely removed, also coffee stains. But blood stains and cocoa stains disappeared more completely in an alkaline soap bath. TXI foams abundantly even with a very greasy and soiled material. The foam drops with rising temperature and disappears toward 80°C. As the washing progresses, the bath becomes increasingly turbid, but never becomes greasy to the touch. The machine becomes less dirty than it does with soap powder, and the soil is deposited more readily at the bottom than when soap is used.

A laundering detergent based on a sulfated alcohol was found to increase whiteness and offer considerable advantage over a special soap powder in washing greasy materials under commercial conditions.

FLEXIBLE

PROCTOR *Automatic*
FLAKE SOAP SYSTEM

• process soap for final use as bars, flakes or powder

• process many different formulae and a wide range of moisture content

One of the advantages of the Proctor automatic flake soap system that has made it the choice of so many manufacturers is its flexibility. With this one system the producer can process soap for final use as bars, flakes or powder or soaps of different formulae. The moisture content of the soap may be varied to suit individual cases. The entire system is designed with flexibility in mind. The temperatures and humidity within the dryer, and the speed of the conveyors carrying soap through the dryer—may be varied to meet the requirements of different formulae or the end form which the soap is to take. Always the result is the same—dependably uniform finished soap. An investment in a Proctor automatic flake soap system is an investment in profit—for the flexibility of this system makes it adaptable to your every soap drying requirement . . . assuring you uniform results in every instance. For information on how the flexibility of a Proctor automatic flake soap system may contribute to your profits — write today.

AN INVITATION TO PATENT HOLDERS

Have you patented equipment which you have developed for your own line of business that you would care to have developed, manufactured, or sold?

If such equipment comes within the line of our manufacturing and selling experience, we would be pleased to have you contact us. We will discuss the matter with you without obligation. If there seems to be a mutual advantage we may be able to realize good returns on new developments.

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Soap Dye Dispersant

Geigy Co., England, has announced "Belloid TD." Its solution has a strong dispersing action on suspended solids, which is constant over a pH range of 4 to 9, and is scarcely affected by water hardness. Where a smooth well-dispersed uniform paste is to be made by grinding a powdered solid in water, the powder, "Belloid TD," and the water are milled together in either an edge runner, a colloid mill, or a ballmill. The presence of the "Belloid TD" reduces milling time, and enables smoother pastes of higher solids contents to be prepared.

The company says that the inclusion of "Belloid TD" by bringing about complete dispersion of the pigments enables them to exert their maximum tinctorial strength. Apart from soapmaking its use is recommended in the insecticide industry, where the actual insecticidal ingredient, either by itself or extended in an inert carrier such as china clay, is to be applied in the form of an aqueous suspension. In such products it will assist in maintaining the active ingredient in a well-dispersed condition and prevent settling out, through *Soap, Perfumery & Cosmetics*, March 1952.

Chloroxylenols in Soaps

UNTIL the comparatively recent success of hexachlorophene in so-called deodorant soaps, no product was available which was an effective bactericide when compounded in toilet soap for ordinary use. Recent work on one of the dichloroxylenols by Gemmell* in England indicates that dichloro-sym-*m*-xylenol is effective as a bactericide in toilet soaps comparable with hexachlorophene. D.C.M.X., as the compound is known, displays residual bactericidal effect when used for ordinary hand washing. Its cost is stated to be considerably under hexachlorophene.

Tests which were carried out in the pathological laboratory of a large hospital are shown in the accompanying table. Hands were washed in the usual manner and no surgical scrubbing-up was undertaken. Swabs were taken at appropriate intervals and plated out. During the course of the tests, subjects carried out their normal duties and no steps were taken to avoid reinfection. Toxicity tests on the dichloroxylenol showed no cases of toxic or dermatological reaction. The high bactericidal value of the compound requires use of small percentages only and in itself tends to reduce toxic risk.

Disinfectants based on chlorinated xylenols have been in use in Germany for the past thirty years, but not much attention was paid to them elsewhere, however, until about 1940 when they were first used to fortify pine oil disinfectants due to shortages of pine oil for manufacture of non-toxic products. In 1942, D.C.M.X. was first manufactured in England. Despite the high phenol coefficient of 160 to 250, depending on organism and method, disinfectant manufacturers did not take too much interest in the material for some time. More recently, the bactericidal effectiveness of D.C.M.X. against a wide range of pathogenic organisms has established its acceptance and use more firmly. The product is finding wider favor as an industrial preservative and mould inhibitor in adhesives, creams, and ointments where its lack of toxic or corrosive properties make it safe to use.

D.C.M.X. or 2:4-dichloro-sym-*m*-xylenol is a white crystalline powder with characteristic odor and a melting point of 95C. It is sparingly soluble in water, one in 5,000, but readily soluble in most organic solvents. Its solubility in pine oil and terpineol is upwards of 30 percent. It is soluble in five percent solutions of sodium carbonate and caustic soda, in the cold, without decomposition.

* *Manufacturing Chemist*, Vol. 23, No. 2, Feb., 1952, pgs. 63-65. John Gemmell, chief chemist, Robert Haldane & Co., Ltd.

Time (hours)	*Unmedicated*			*Hexachlorophene (2%)*			*Dichloroxylenol (2½%)*		
	Bacterial counts								
0	4	62	2	4	0	11	7	0	4
½	76	70	17	16	7	17	21	17	26
1	304	110	94	40	21	26	40	24	28
2	1,100	921	817	46	40	111	46	32	30
3				60	60	132	91	36	104
4				71	78	146	102	111	111
5				97	211	241	104	117	114
6				438	714	531	117	206	207

The surviving organisms in the case of the two medicated soaps were found to be of identical types; there was no evidence to suggest that any one compound had a more specific action than the other.

Photography Studies Soil

A new method for determining the efficiency of various washing processes was described recently at the University of Michigan by Dr. G. M. Ridenour, director of research projects of the National Sanitation Foundation. By use of radioactivity even hidden dirt can be shown on any surface or material. Clothing, eating utensils, or other material is soiled with specific quantities of dirt and bacteria that have been made radioactive. The radioactive quality does not make it any easier or harder to wash the dirt from the clothing or utensils. But it does make it possible to detect through photography whether all or a portion of the dirt is removed by the washing.

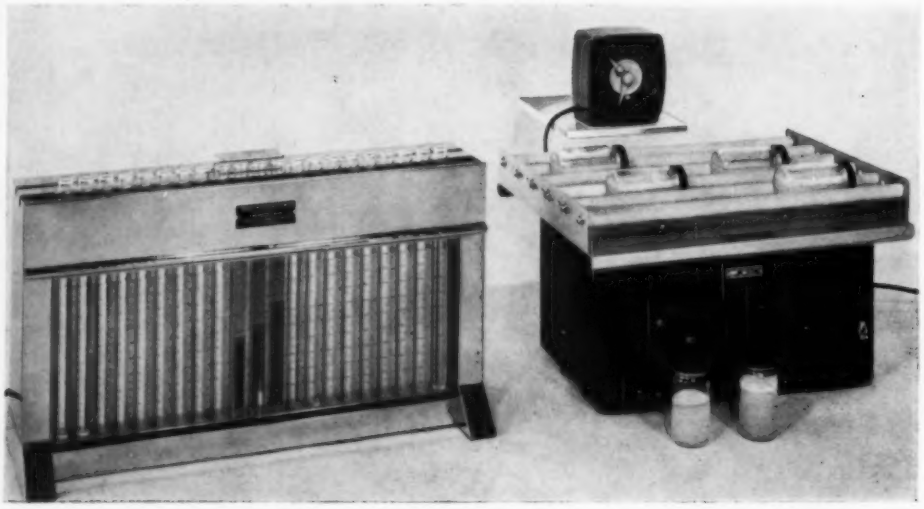
After soiled clothing or utensils are washed, they are exposed to X-ray film. Dirt and bacteria unremoved by the washing, but invisible to the eye, are recorded on the film. The photographic print reveals both the quantity and the distribution of the dirt and bacteria, and measures surface cleanliness.

Dr. Ridenour and his staff began their research with radioactive

"ATLAB"

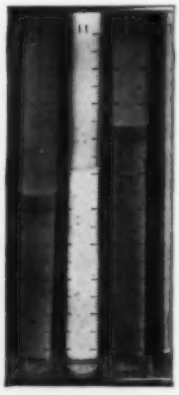
EMULSION TEST APPARATUS

For the examination and precise comparison of prepared emulsion formulations in accordance with a technique developed by Atlas Powder Company



4942-A.

EMULSION TEST APPARATUS, "Atlab". For the examination and precise comparison of prepared emulsion formulations in accordance with a technique developed by Atlas Powder Company, Central Research Laboratories, Wilmington, Del.



Showing appearance of illuminated central tube at time of reading percent volume of test emulsion.

The principal component of the assembly is the illuminated Emulsion Viewer (patent applied for) which permits definitive observation and percent-volume evaluation of 21 samples under standardized conditions. Of Stainless Steel, with movable masked light source in a slideway which permits accurate measurement of the extent of creaming, sedimentation or oil separation in test emulsions. Results are read as percent volume directly on the graduated glass scale on the front plate. The ruled plate is of photosensitive glass, 24 inches long x 8½ inches high, with protective glass cover. Illumination is restricted to one tube at a time to eliminate prolonged heating effects. The emulsion tubes are made of carefully selected colorless glass with plane flat bottom.

The Shaking Apparatus (patent applied for) is of the reciprocating type specially adapted for thorough mixing of emulsions under controlled conditions for evaluation in the Viewer. Glass jars containing the samples are laid on horizontal, rubber-covered metal rods, without clamping, permitting transfer in minimal time. Adjusted for shaking at the rate of 280 oscillations per minute, with horizontal stroke of 1-inch, as specified by the authors, W. C. Griffin and R. W. Behrens, to provide most reproducible results.

4942-A. Emulsion Test Apparatus, "Atlab", as above described, complete as shown in illustration, consisting of Emulsion Viewer with 48 Emulsion Tubes 315 x 20mm. and lamp for use on 115 volts, Shaking Apparatus with removable carrier and motor for 115 volts, 60 cycles, a.c., Automatic Time Switch for control of 30-second shaking cycle, 48 Screw Cap Jars, 4 oz. capacity, and 192 plastic caps for same. **$326.34**

4943-A. Emulsion Viewer, only, with 24 Emulsion Tubes and lamp for 115 volts.... **$163.58**

8919-G. Shaking Apparatus, Reciprocating Type, only with removable carrier for twenty 4 oz. jars; with cord and plug for 115 volts, 60 cycles, a.c..... **$128.00**

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material to measure the effectiveness of home laundry machines. They extended their work to study the removal of dirt and bacteria from dishes and other eating utensils. The results of the laundry machine studies are to be made public by the National Sanitation Foundation in a report to be published this month. The report on the radioautographic method will be published at a later date.

Alrose Describes "Nonisols"

A technical bulletin, recently published by Alrose Chemical Co., Providence, R. I., describes "Nonisols" as nonionic surface active agents of the polyoxyalkylene fatty ester type, all substantially 100% active oils or soft waxes. The group contains emulsifiers and interfacial tension depressants, spreading agents, dispersants and detergents, thickeners, plasticizers, wetting agents, stabilizers; they are indifferent foamers.

"Nonisols" are light colored, bland in odor and taste. Acid number does not exceed 6.0 and ash content is less than 0.1%. They are all either soluble or dispersible in cold water usually yielding viscous, thixotropic solutions. Like other nonionics, they are insoluble in very hot water, but may be solubilized by addition of a few percent "Sorbit AC." They are soluble in alcohols, ethers, ketones, esters, chlorinated and aromatic hydrocarbons but have limited solubility in glycerine, ethyleneglycol, propyleneglycol.

"Nonisols" are stable at high temperatures, have low vapor pressure and may be distilled only under very high vacuum. Aqueous solutions are almost neutral (pH 6.5), are stable to autoclaving or in the pH range 3.5 to 9.5 but will hydrolyze beyond this range. They are compatible with either anionic or cationic materials and may often be combined advantageously with these.

There is a table showing the physical constants of the group, and also very full information concerning its uses and applications in various industries. This includes a paragraph on the use of "Nonisol" 100 in the making of soap shampoos.

Book Reviews

German Soap Making Book

Die Seife und Ihre Herstellung (Soap and Its Manufacture) by Theodor Hempel, Herbert Manneck, Heinrich Schuck, and Max Stein. Published by Verlag fuer Chemische Industrie, H. Ziolkowsky K.G., Augsburg, Germany. 706 pages, 7 x 9½ inches, cloth binding, $10.95.

This book on soap and its manufacture is addressed to the young soap technician and apprentice as well as to the experienced soapmaker. The first section is concerned with the manufacture of soap. It includes chapters on raw materials, on the processing of fats and oils, and individual dissertations on the making of various soap products such as soap powder, toilet soaps, etc. It also includes a chapter dealing with synthetic detergents, featuring a list of such products by tradenames, chemical groups, and makers. The second section deals with the technology of soapmaking, concerning itself with plant, equipment, and processes. The book carries 135 pictures and an index.

Technical Liaison Book

Communication of Technical Information by Robert M. Dederich. Published by Chemonomics, Inc., New York. 116 pages, 8½ x 6 inches, paper binding, price $5.00.

This book is concerned with inter-organization communications in industry. It covers the thinking and logic which should underlie the written report, progress statement, memo, and oral presentation at conferences. In short it endeavors to bridge the gap between the interests, knowledge and language of the scientist and the business executive, between the professional man and management.

Book On Crop Insects

Field Crop Insects, by F. A. Felton, professor of entomology, Oklahoma A & M College, Stillwater. Published by MacMillan Co., New York, 405 pages, illustrated, price $5.75.

The text begins with a discussion of the insect world as a whole—biological and ecological. Insecticides and their application are then covered. Other methods of control such as cultural, biological and pest control campaigns are included. About one-third of the book is devoted to this subject matter while the remainder is devoted to specific insects harmful to such field crops as corn, wheat, cotton and others.

Each chapter discusses specific insects giving their history and types of damage. The book is well illustrated with charts, tables and illustrations. It is written for those dealing with the insects covered and as a reference text for people in related fields.

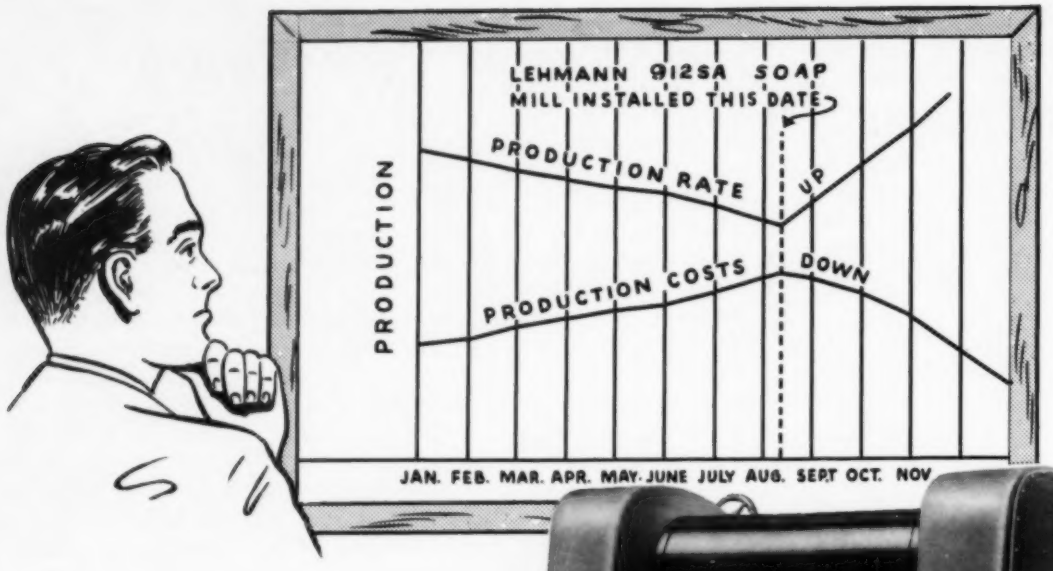
Butyl "Carbitol" Sheet

Carbide and Carbon Chemicals Co., New York, recently issued a new technical bulletin on butyl "Carbitol." Physical and chemical properties, shipping data, and applications are included.

Butyl "Carbitol" is used in specialty soaps, soluble oils, and textile oils, as a mutual solvent. It also acts as a booster for anionic wetting agents. The new bulletin (F-7906) is available from the company on request.

Butyl Stearate Standard

The Toilet Goods Association recently issued standard #39 covering butyl stearate. The following requirements apply: Color must be acceptable to buyer; odor to be practically odorless, must be acceptable to the buyer; solubility: must be soluble in acetone, methanol, mineral oil, toluene, vegetable oils, ethyl acetate and chloroform; specific gravity, 0.850—0.860 @ 25°C./25°C.; acid value, 1.0 maximum; ester value, 168-175; titer, 54°C.—56°C.; saponification value of the separated fatty acids, 207-212; acid value of the separated fatty acids, not more than three less than the saponification value found; iodine value of the separated fatty acids, three maximum.



Are you sure that you can't reduce production costs?

The Lehmann 912A
Five Roll Finishing Mill

Manufacturing executives should be concerned with rising production costs today. If more efficient machinery can reduce costs — this is the time to get it.

In these days of unprecedented prosperity ("expanding economy" they call it) expanding costs may not seem so dangerous. But what happens when this "expanding economy" becomes a "contracting economy"? Is it not wise in prosperous times to get operating costs down to bed-rock and be prepared for times that are not so prosperous?

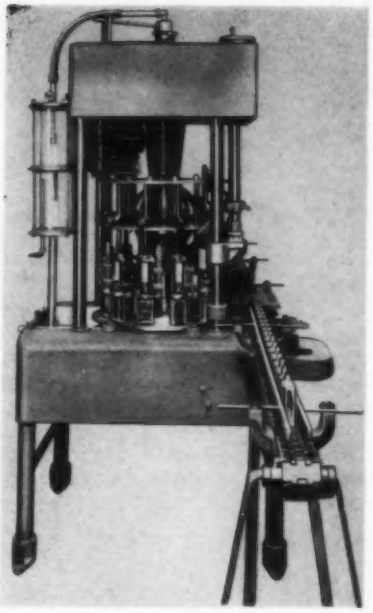
Much of the machinery in use today is badly out of date and should be replaced. One of the principal weapons of the manufacturer in combating rising costs is the increased and improved mechanization of manufacturing processes. Look over your soap finishing machines now, with a critical eye. Are there any wasteful, high-cost units in your plant that should be replaced? Try to estimate the savings you could o tain by installing new, up-to-date types.

Send for descriptive bulletins of Lehmann soap finishing machines — amalgamators, roughing mills, preliminary plodders, finishing plodders, finishing mills.

LEHMANN

J. M. LEHMANN COMPANY, Inc.

MAIN OFFICE AND FACTORY: 548 **NEW YORK AVE., LYNDHURST, N. J.**



New MRM Co., Brooklyn, rotary filling machine (above) featuring ove-head mechanisms, which are to be standard design on the company's fully automatic line. Both gravity and vacuum machines of from 12 to 14 spouts are being constructed with the bottom half of the machine free from mechanisms, thus eliminating possible contamination from spillage. Fillers have production capacities of up to 400 containers of glass, plastic or tin per minute.

Metal Closures Booklet

Crown Cork & Seal Co., Baltimore, recently issued a brochure covering the types of closures and liners it offers for use for food, drug, chemical, cosmetic and other products packed in glass. Description of quality control, design service, laboratory service and warehouse service are included in the booklet, which is illustrated in color. Copies are available on request.

Essential Oils, Vol. V

The Essential Oils by Ernest Guenther, volume five. Published by D. Van Nostrand Co., New York. 507 pages, 6¼ x 9¼ inches, cloth binding, price $9.75.

This latest addition to Dr. Guenther's standard series, like the two volume preceding it, is concerned with individual essential oils, their production, physiochemical properties, chemical composition, and their uses.

The oils are grouped by botanical families. Some are of importance to the makers of soaps, cosmetics and perfumes. Among the more usual ones in this group are rose, sandalwood, cananga, Ylang Ylang, jasmine, tuberose, and violet. Many of the oils are introduced by their French, German, Spanish, and Latin names as well as in English. The index is equally polyglot.

The volume carries illustrations showing harvest and production methods in many parts of the globe.

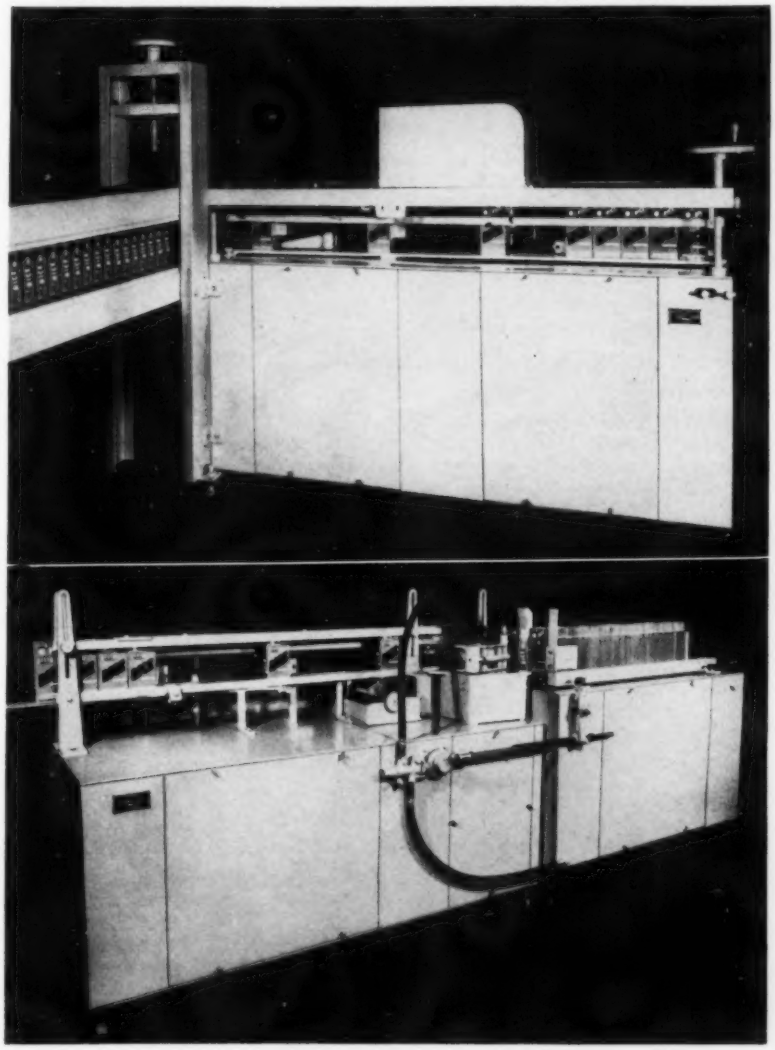
New Carton Sealer

A new automatic carton sealer has been developed recently by J. B. Bellamy & Co., 117 Main Street, San Francisco. The completely automatic sealer comprises two separate units: a bottom sealer, complete with automatic feed and carton magazine, and a top sealer, including a compression or drying section. The units may be used together, with any type of carton filling operation in between, or they may be used individually for operations where only the bottoms or tops of the cartons are to be glue-sealed.

Speeds of 65 cartons per minute can be obtained, with one operator to keep the bottom sealer's carton supply magazine filled. No operator is required for the top sealer. Changeover from one size to another takes between 15 to 20 minutes for both units.

The new machine is designed to handle sizes from a small gelatin-type carton up to a giant soap carton, with no added parts except for an extreme size range. If desired, the sealer can be furnished to utilize pre-lined cartons. Sealers, now in daily use, are handling cartons for insecticides, soap, and other products.

Two new automatic carton sealers below were announced recently by J. B. Bellamy & Co., San Francisco. Upper photograph is of top sealer, while unit underneath is for sealing the bottoms of the cartons. Sealers handle cartons for soaps, insecticides, etc.



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By E. G. Thomssen, Ph.D.

PASTE MIXERS

THE mixing of pastes or creams entails more difficulty than the blending of powders or liquids. The most common types of pastes encountered in making chemical specialties are mixtures of previously prepared powders with liquids, pasty masses, usually produced during a chemical reaction, or creams or pastes, liquid at elevated temperatures but which thicken up as the temperature falls.

The first type is illustrated by such items as metal polishes, the second by scrub soaps and the third by paste wax polishes. The kind of end product desired, indicates the type of mixing equipment which should be used.

Paste mixers used for making sanitary chemicals vary. Those used most frequently are the change-can (Pony) mixers; the screw and thimble type, better known as crutchers; and the mass mixers or kneaders often termed dough mixers. Implementing the list, ointment mills, roller mills and heat exchange mixing equipment may be included.

Change-can mixers are handy pieces of equipment in any plant. They come in small or large sizes, gearless or with overhead gear drives. They consist

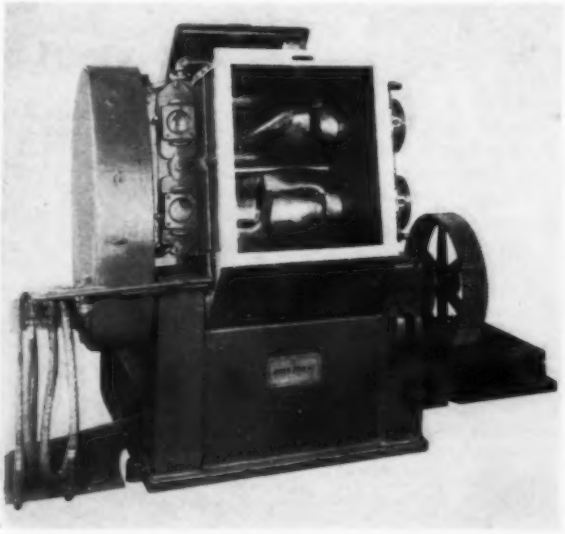
DR. THOMSSEN

of four vertical mixing blades that agitate the mass. The blades are fastened to the driving device at different length axes. These can be tilted out of or raised from the mixing can firmly set on a rotating turret. The turret and blades, which are staggered, rotate in opposite directions. A stationary, vertical scraper blade prevents the mass from accumulating on the sides of the can. It is customary to have available several removable cans that may be fitted on the turret. While these mixers are well adapted to mixing pastes made from liquids and powders, they may also be used efficiently for other paste products.

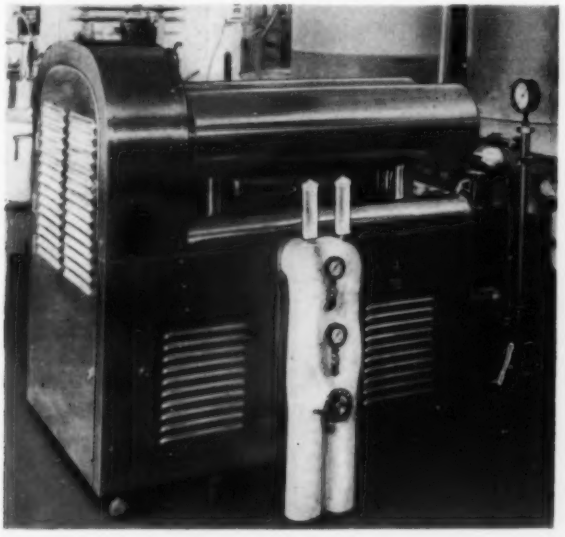
The vertical type is a variation of the change-can mixer one finds often used for heavier duty. This mixer operates from a planetary mixing shaft driven from overhead. The shaft may be raised or lowered by a wheel and ratchet into or from a removable or stationary dish bottom bowl or vessel. To this shaft a miscellaneous assortment of mixing attachments may be fastened, depending upon the product being handled. A variable speed drive is available. This mixer is very adaptable for thinning out pastes and is also used frequently for the making of liquid or solid emulsions. Steam jacketed bowls with or without bottom discharges may also be had.

The crutcher, or screw and thimble type mixer, is commonly used in soap plants. It consists of a vertical, jacketed, bottom outlet tank in which is fixed an inner steam jacketed thimble with ample clearance at the top, bottom and sides. This permits the reversible type screw, which is fitted into the thimble, to agitate the mass from the bottom over the top of the thimble or vice versa. Very thorough agitation is obtained from the moment

Lower left is "Universal" type mixing and kneading machine of Baker Perkins, Inc., New York, useful for heavy mixing work.



At right is the "Votator" processing apparatus of Girdler Corp's. Votator Division, Louisville, used for shaving cream and soap.



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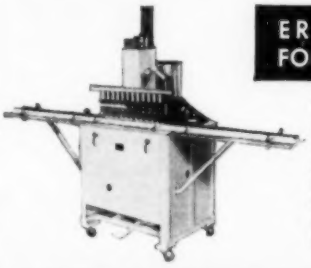

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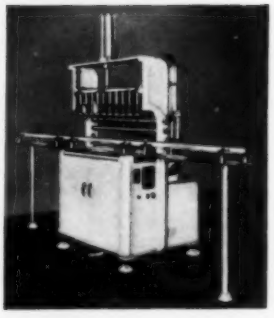

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the charge meets the bottom of the screw until the crutcher is charged to capacity. Regardless of whether the mass is thin or heavy the flow is always up or down from the annular space between the thimble and the shell of the mixing tank. Thick masses are readily discharged from this mixer. The drive usually is overhead and reversal of the screw is attained by a mechanical device from a direct connected motor, if belt driven. Crutchers usually are available in sizes that handle from one to 10 thousand pounds of soap. Most of the potash soaps, such as scrub soaps, are made in this type of mixer.

The kneading type, or mass, mixer is best adapted to agitating heavy mixes. This type of mixer is seen most often in bakeries. It has been called a dough mixer because during its operation the blending action simulates hand kneading of dough. The dough mixer usually consists of a tilting, plain or jacketed rectangular, horizontal, round bottom mixing vessel in which one or two heavy, cast, worm or heavy paddle type agitators revolve. When two agitators are used, they revolve in opposite directions. This kind of mixer can handle medium or dense pastes up to the heaviest sort, such as rubber compositions in the Banbury mixer. This mixer has been adapted to make floating soap through a remelting procedure. Various sizes of mass mixers are to be had ranging from laboratory types handling but a few pounds up to large capacities handling lots of a ton or more.

In many cases a smoother product may be required than can be obtained through sample mixing. Sometimes, too, lumps may remain in the mixed mass. A smooth end product can result from the use of ointment or roller mills. In such devices the premixed pastes are passed through two tightly fitted disks that revolve in opposite directions. Sometimes a series of close fitting contiguous steel rollers are employed. This shearing or milling action assures the crushing of any lumps developed during mass mixing. In some cases, the milled product is again passed through the mill to assure homogeneity.

The Votator processing apparatus originally developed for the edible fats and oils industry, has come into extensive use for mixing and simultaneously chilling viscose liquids which form pastes upon cooling. Among the soap products thus handled are brushless shave creams and floating soaps. The material is pumped into a Votator apparatus and passes continuously between a revolving shaft and the heat transfer tube. A clean heat transfer surface is maintained by scraper blades attached to the revolving shaft. The scraper action also helps to provide intense and intimate mixing.

Other types of powder, liquid and paste mixers are available, but for the great majority of plants the equipment described above is suitable for handling sanitary chemicals. It should be remembered that the materials from which such devices are constructed must resist any chemical reaction brought about by materials going into products processed in mills or mixers.

(To be continued)

New Plastic Pipe

A plastic pipe, able to withstand heavy pressures, light in weight, yet flexible enough to be easily bent, was developed recently by Perrault Bros., Tulsa, Okla. This corrosion proof pipe is made from a glass fibre, reinforced plastic. It is thermosetting but, unlike some thermosetting pipe, will not shatter nor melt at elevated temperatures.

Turbo Dryer

WYSSMONT Co. of Long Island City, N. Y., currently features its Turbo Dryer for producing granules, beads, pastes or powders. The company claims that due to repeated piling and spreading of products to be dried, gentle handling is possible.

Bundling Machine

THE bundling of individual packages into units of a dozen or half dozen for storage by merchants is not particularly new. Accomplishing this by machine and by the use of kraft paper, instead of cartons or boxes, is an economy that should not be overlooked. Package Machinery Co., Springfield, Mass. has pioneered automatic bundling machines for quite a while. The company's machine may be equipped with unit to assemble the individual packages into one, two or three layer bundles.

The "Readco V4-120" vertical mixer, above features 120 quart bowls steam jacketed. The mixer is made by Read Standard Corp., York, Penna.

Viscosity Controller

IT is often important to control the thickness of a mixture. Soapmakers, for example, realize that the quality of finished soap is dependent upon the thickness of the soap in the kettle. A device by which the thickness and viscosity of any mixture may be rapidly determined at a wide temperature range is offered by Rich-Roth Laboratories, East Hartford, Conn. There is no necessity to stop operations for sampling purposes. Their instrument known as the "Ultra-Viscoson" may be installed permanently in process equipment. The device operates by ultrasonic waves and an electronic computer. Its high cost restricts its

(*Turn to Page* 173)

The gearless pony mixer below, featuring stainless steel can and agitators is made by J. H. Day Co., Cincinnati. Mixer shown is 40 gallon size.

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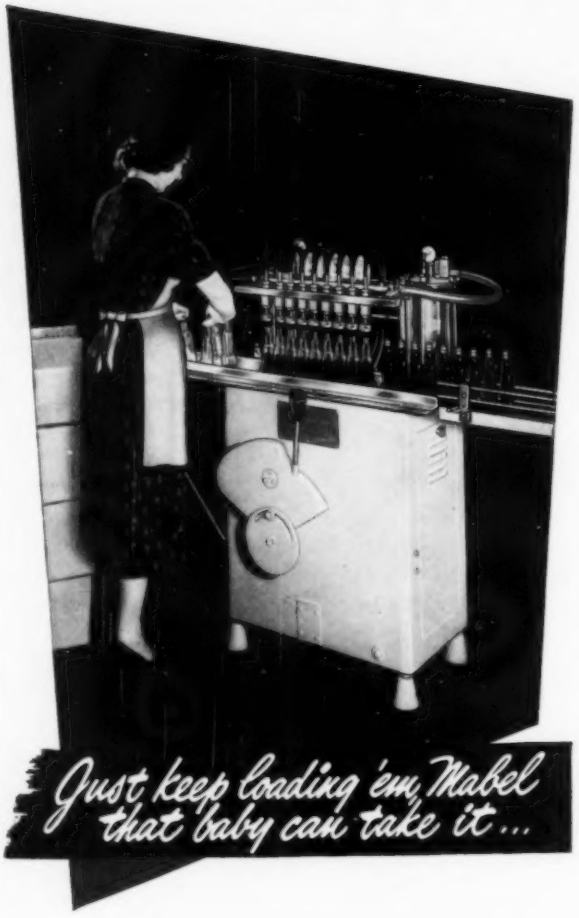

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Products and PROCESSES

Cake Form Detergent

Finely crushed diatomaceous earth, alkali polyphosphate, and synthetic sulfonated fatty alcohols in powder form are mixed together. The mixture is pulverized, milled, and the balled mass is pressed and afterwards shaped into bars under pressure, without use of a liquid. The resulting product contains no free alkali and is suitable for laundry and toilet use. French patent 962,703, through *Seifen-Oele-Fette-Wachse*, #5, 1952.

BHC in Soap

Soap formulated with 5 percent benzene hexachloride effectively controls lice, and retains its potency for five to six months. N. V. Geminov, E. I. Shvartsshtein, and R. T. Panin, Gigiena i Sanit. 1951, through *Chem. Abstracts*, vol. 46, p. 2227.

Soap Finishing Patent

British patent 662,648 granted to Lever Brothers and Unilever Ltd., Port Sunlight, relates to the process of finishing kettle soap. To avoid difficulty in maintaining a uniform feed to the centrifuge, it is suggested to condition the soap mass by adding to it sufficient water to convert it to a substantially homogenous condition. The conditioned mass, having a total fatty acid content of 40-66 percent, is intimately mixed and agitated with a stream of electrolyte, so proportioned as to cause a neat soap phase to be formed, the total fatty acid of the mixed stream being 38-62 per cent. The mixed-stream is maintained at a temperature of not less than 180°F. and centrifuged to separate the neat soap.

Coconut Substitutes

Recent research at the National Laboratories of India indicates that pisa, khakan, and phulwar oils can replace coconut oil in soapmaking. Methods of eliminating the objectionable odor and taste of neem oil have been found, and the refined oil can be hydrogenated to provide a source of high quality stearic acid for use in soap. *Soap*, official organ of the South India Soapmakers' Association, January 1952.

Improved Potash Soaps

Stable and neutral potash soaps with improved transparency are made by saponification of the fatty base under normal or high pressure with caustic potash containing no or very little potassium carbonate, and by adding a small amount of a "partial ester" of a polyvalent fatty alcohol. British patent 601,651.

Continuous Soap Method

Soap chips and additives, soft filler, color and perfume in measured amounts are fed continuously into a mixer (Doppelwellenmischer). After mixing they are continuously passed through a soap mill. Swiss patent 269,513, through *Seifen-Oele-Fette-Wachse*, #5, 1952.

Cold Saponification

French patent 863,296 covers an apparatus in which a mixture of fat and lye is emulsified through violent stirring. This causes rapid saponification without introduction of heat. Through *Seifen-Oele-Fette-Wachse*, #4, 1952.

Glycol Stearates

Polyethylene glycol stearates, their properties and applications as emulsifiers and wetting agents for use in cosmetics are discussed in a recent issue of *Revue des Produits Chimiques*. They can be used as wetting agents in an aqueous medium as well as in the presence of oil. Polyethylene glycol stearates possess high penetration as detergent agents, and can also be used to facilitate the formation of foam. These compounds have found acceptance as emulsifiers in making insect repellents based on dimethyl phthalate or benzyl benzoate, for example.

Detergents in Sewage

A statistical study of the use of synthetic detergents in Aurora, Elgin, and Aurora, Ill., and correlation of this use with plant operation over a period of years before and since these detergents became popular indicated that detergents tended to reduce the suspended matter and to increase the ammonia content of the raw sewage and to inhibit gas formation in digesters. The total bacterial content of the raw sewage at Aurora also seemed to be affected downward. W. A. Sperry, *Sewage & Ind. Wastes*. 23, 1469-76 (1951)

Soap Composition

A soap consisting of 200 parts fat, 740 parts whey of milk, 200 parts rosin, 200 parts sodium hydroxide, 3000 parts water is covered by French patent 882,296. Through *Seifen-Oele-Fette-Wachse*, #4, 1952.

Neutral Detergent

A neutral detergent is made by mixing a sodium salt of sulfonated paraffin 25 percent, polyethylene oxide 55 percent, and paraffin wax 20 percent. Societe de produits chimiques de L'Ariege, French patent 961,581.

Transparent Dentifrice

A clear and transparent dentrifice is made by treating hemicellulose with glycerine, and then combining this mixture with solutions of carbohydrates and sulfonated fatty acids. Swiss Patent 267,534.

Colloidal Silica in Waxes

The Grasselli Chemicals Department of E. I. du Pont de Nemours & Co., Wilmington, Del., features in the February edition of its "Chemical Briefs" an article on "Ludox" colloidal silica in anti-slip waxes. According to du Pont, "Ludox" in aqueous floor waxes makes skid resistance possible without softening the film, while gloss, water resistance, freeze resistance and leveling are equal to those of other waxes.

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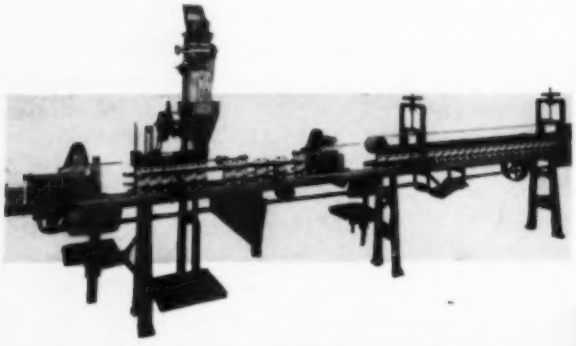

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NEW Patents

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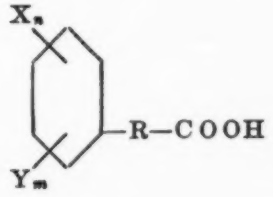
The data listed below is only a brief review of recently issued pertinent patents obtained by various U. S. Patent Office registered attorneys for manufacturers and/or inventors. Complete copies may be obtained direct from Lancaster, Allwine & Rommel by sending 50c for each copy desired. $1.00 for Canada. They will be pleased to give you free preliminary patent advice.

No. 2,582,958. Detergent Oil Composition and the Method for Its Preparation, patented by Elmer W. Brennan and Norman D. Williams, Chicago, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio. The patent covers the method of preparing a composition suitable as a lubricant additive comprising preparing a salt of wool grease and a metal selected from the group consisting of zinc, barium, calcium, strontium, magnesium, tin, lead, nickel, and cobalt, reacting the salt with a sulfide of phosphorus at a temperature between 200 and 300° F. for a period of time sufficient to sulfurize and phosphorize the salt, and neutralizing the sulfurized-phosphorized salt with a basic compound of a metal of the group consisting of zinc, barium, calcium, strontium, magnesium, tin, lead, nickel, and cobalt, the total amount of metal reacted to form the resulting product being substantially in excess of the amount required to saponify the wool grease.

No. 2,580,414. Insecticide Capsule, patented by Thomas Edward Duffey, West Palm Beach, Fla. A packaged insecticide is covered, comprising a sealed soft gelatine capsule, said soft gelatine being capable of further softening in an aqeuous medium, a pesticide solution within said capsule, and a stretched rubber band surrounding said capsule and exerting an inwardly directed pressure against such capsule sufficient to rupture said capsule automatically when it softens in an aqueous medium.

No. 2,581,677. Phosphate Detergent Composition in Homogeneous Liquid Form, patented by Samuel Machlis, New Rochelle, N. Y. and Edwin B. Michaels, Stamford, Conn., assignors to The Stamford Chemical Company, Stamford, Conn., a partnership. A composition in the form of a homogeneous liquid is described having detergent properties and consisting essentially of an aqueous medium containing an alkali metal phosphate in an amount from about 13 to about 26%, a sulfonated higher fatty acid amide in an amount from about 5 to about 10%, an alkyl aryl sulfonate having the general formula $R\text{-}R^1\text{-}SO_3M$ in which R represents an alkyl group containing from 12-15 carbon atoms, R^1 represents an aromatic residue of the group consisting of a benzene, naphthalene and anthracene residue and M represents a metal of the group consisting of sodium and potassium in an amount from about 2 to about 4%, a sulfated higher aliphatic monohydric alcohol in an amount from about 2 to about 4% and an alkali metal aryl sulfonate in an amount from about 4.5 to about 10%, said composition retaining its homogeneity upon standing.

No. 2,580,459. Production of Halogenated Aryl Fatty Acids, patented by Domenick Papa, Brooklyn, N. Y., and Erwin Schwenk, Montclair, N. J., assignors to Schering Corp., Bloomfield, N. J., a corporation of New Jersey. A method of halogenating phenyl fatty acids is described which comprises treating a phenyl saturated aliphatic carboxylic acid compound selected from the group consisting of acids of the general



formula wherein X represents a lower alkyl ether group, Y represents a lower alkyl group, n and m are integers selected from 0, 1 and 2, m being 2 when n is 0, and R is a bivalent saturated aliphatic group containing up to seventeen carbon atoms, and the salts and esters of said acids, with a halogen selected from the group consisting of bromine and iodine in the presence of a silver salt of a carboxylic acid.

No. 2,573,727. Apparatus for Distillation of Fatty Acids, Tall Oil and the Like, patented by Ralph H. Potts, La Grange, and Roy N. Olson, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois. In apparatus of the character described in the patent, a steam stripping tower, a steam distilling tower, and a flash drum, means for passing charging stock successively through said stripping tower, fractionating tower and flash drum, condensers communicating with each of said towers, a steam ejector pump communicating with the condenser for steam distilling tower, a steam ejector pump communicating with condenser for said flash drum, and conduit means directing the steam from the pump communicating with said steam distilling tower to the lower portion of said steam stripping tower and directing steam from the pump communicating with said flash drum into the lower portion of said steam distillation tower.

No. 2,581,840. Insect Repellent, patented by Nathan L. Drake, College Heights, Md., and Charles M. Eaker, Affton, Mo., assignors to the United States of America as represented by the Secretary of the Army. An insect-repellent fabric is described comprising fabric impregnated with the ethyl ester of 6-ethyl-2-methyl-4-oxo-2-cyclohexene-1-carboxylic acid.

No. 2,582,375. Insect Control with an Hydrogenated Naphthylamine, patented by Robert D. Englert, Henry J. Gerjovich, and Michel Pijoan, Boulder, Colo., assignors to The Chemical Foundation, Inc., New York, N. Y., a corporation of New York. An improved method of controlling insects is covered which comprises contacting the insects with an insecticide composition comprising as an effective ingredient hydrogenated naphthylamine dissolved in kerosene.

No. 2,583,245. Fungicide Compositions Containing Chlorinated Isophorone, patented by Roger S. Hawley, Linden, N. J., assignor to Standard Oil Development Company, a corporation of Delaware. A fungicidal composition is described comprising a chlorinated isophorone having from 47 to 67 wt. per cent of chlorine said chlorinated isophorone having been prepared by the direct chlorination of isophorone in the presence of ultraviolet light at a temperature below 215° C. admixed with a surface active dispersing agent which lowers the surface tension of water and thereby promotes aqueous colloidal emulsions of the chlorinated isophorone.

No. 2,582,857. Fungicidal Preparation, patented by Lester A. Brooks, Norwalk, Conn., assignor to R. T. Vanderbilt Co., Inc., New York, N. Y., a corporation of New York. The patent covers a solution of the monoethanolamine salt of 2-mercaptobenzothiazole dissolved in at least one solvent selected from the group consisting of dioxane and compounds of the generic formula $H(OC_2H_4)_nOR$, in which R is a substituent selected from the group consisting of hydrogen and alkyl radicals having from 1 to 4 carbon atoms and in which n is an integer from 1 to 4.

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Away back, when soap was made from a crude mixture of ashes, household waste fats and water, the problem was to know when the ash and water mixture was ready for saponification with the fats. They discovered that when an egg, dropped in the solution, *floated*, the time was right for blending.

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SOAP PLANT *Observer*

By John W. McCutcheon

EVERY once in awhile, the writer of a column such as this, will say something which starts an avalanche of controversy. When this happens, the writer is usually amazed and delighted. Amazed sometimes at the queer angle with which others view his statements and, at the same time, delighted to learn that someone is listening to what he has to say. A writer after all is somewhat like a comedian who has just finished telling his best joke in front of the silent television camera and doesn't know whether to wait, grin or tell another. The controversy this time is in reference to the statement in the February issue on "G-11" (P. 103) and its effect in soap and synthetic detergent solutions. Several sources came to life, so-to-speak, on the subject and it is my hope to discuss the matter more fully next month when time will permit all the data to be presented with studied care. In the meantime, thanks to the respondents.

* * *

ION exchange methods have received considerable attention for glycerine recovery and several very interesting papers were presented on this subject at the recent annual meeting of the Association of American Soap & Glycerine Producers. As far as the writer is aware, however, the application of this process has not progressed very far in the field of synthetic detergents. It is the feeling of this writer that this is an oversight. For example, alkyl aryl sulfonates normally are not over 50% active. By settling and draining off the acid water solution before neutralizing, somewhat higher concentrations of the active may be obtained. By using a very concentrated acid or even water-free "Sulfan" (SO_3) under special condition, it is said that concentrations as high as 85% active may be obtained. Higher concentrations than this are usually prepared by some type of solvent extraction. The object of such

methods is frequently two fold: to increase the percent active and to reduce the content of inorganic salt.

It appears logical that ion exchange methods have a place in any research program in which the removal of residual salt is desirable and where the final product might be used in low concentration, since the ion exchange method requires a low viscosity for good operation (See November 1951 column on ion exchange on salt crude glycerine).

* * *

FROM time to time we have stressed the importance to the soap industry of methods of disseminating information. This is becoming increasingly difficult year by year, due to the great activity in research and to the volume of the reports. To keep abreast of developments in the detergent field is a terrific task, particularly when one is in the practical business of keeping materials on the move through a plant. Punched card methods were mentioned as a means to this end in the September 1951 column. It was pointed out that IBM methods have a great deal of merit and are not as costly as one might imagine. However, the object to date appears to be the development of a special all-inclusive system for general formula abstracting with a view to its use as a research tool in itself. Under such procedure, the coding of the cards is an extremely time consuming and delicate operation requiring special skill. The combination and permutation artists are like the cows that strayed into the wheat field. They are so busy running they haven't time to eat. I do not intend to belittle the great work that is being done.

Eventually such a system will be in use. Probably one or two million dollar installations will be set-up strategically and so complete that a bibliography on any subject can be obtained in five minutes, with complete photostats in ten. As of now, this is no help. It is suggested in the meantime, that a great deal of help can be obtained by simple coded, hand sorted cards such as described previously in *Soap & Sanitary Chemicals* (Synthetic Detergents on File, January issue, P39-40, 1948). This is just one example of many hundreds described elsewhere.

The point I am trying to make is that the literature usually obtained on punched card systems frequently emphasizes the complex rather than the simple, thereby frightening away would-be users. If you have a dozen or two classifications with a similar number of sub-classes, it is easy to find what you want in five or ten minutes —out of five thousand cards, which is a stack about one yard high. This is far easier than trying to keep them filed by subject matter, no matter how thoroughly they are cross indexed.

—— ♦ ——

New Filling Machine

A new filling machine with a supply tank on top which keeps the pressure on foamy products down to a minimum was announced recently by Perl Machine Manufacturing Co., Brooklyn. A float valve built into the supply tank controls the liquid level. The tank is adjustable for different height settings by which means the pressure can be regulated.

Universal automatic filling valves permit filling by gravity or vacuum or pressure. Special micrometer screw adjustments on the valves are designed to insure accurate filling levels in all containers. The Perl machine's automatic bottom shut off on the valves and the special packing

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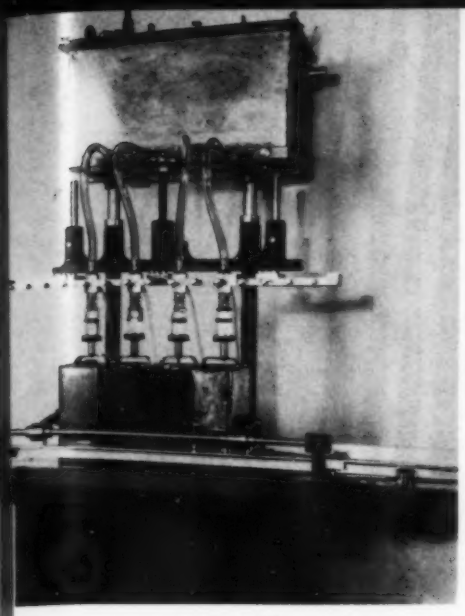


New Perl filling machine. with supply tank on top.

screw to prevent air from penetrating between the two sliding tubings of the valves makes dripless filling certain under all conditions. Complete specifications may be obtained by requesting circular F-1.

New Wood-Treating Unit

A unit to treat sash, frames and other millwork with pentachlorophenol preservative and water repellent, said to be faster, cleaner and more efficient than currently used open-tank immersion methods, was announced jointly last month by Wood-Treating Chemicals Co., St. Louis and Carr, Adams and Collier Co., Dubuque, Iowa.

The new process employed by this vacuum sealer unit assures better penetration and distribution of the treating solution in the wood. A final vacuum after treatment leaves wood surfaces in a dry condition as they come from the unit. Wood treated by this process with solutions of Monsanto's pentachlorophenol will have high resistance to fungi and wood-destroying insects, as well as a high degree of dimensional stability.

German Synthetic Waxes

A study of I. G. Gersthofen waxes, P.B. report #34727, has been translated by S. S. Cosman and reviewed by P. F. Dewey. The report covers formulas, manufacturing procedure, and application of these waxes. It is available from P. F. Dewey, 3757 South 14th Street, Milwaukee 15.

"Dresinate" Booklet

A technical booklet describing properties and applications of "Dresinate", a series of sodium and potassium salts of rosin and resins, is now available from Hercules Powder Co., Wilmington, Del. The brochure includes chapters on the use of "Dresinate" for emulsifying soluble oils, and for alkaline cleaning compounds. Suggested uses include emulsifiers in textile oil emulsions, pine oil emulsions, and tar-acid emulsions; in soaps and detergents; in household cleaners; and in industrial cleaners.

Russian Soap Reports

Four papers of potential interest to soap makers which originally appeared in the February 1950 issue of the *Journal of General Chemistry* of the USSR are now available in translation from Consultants Bureau, Inc., 152 W. 42nd St., New York, at $5.00 each.

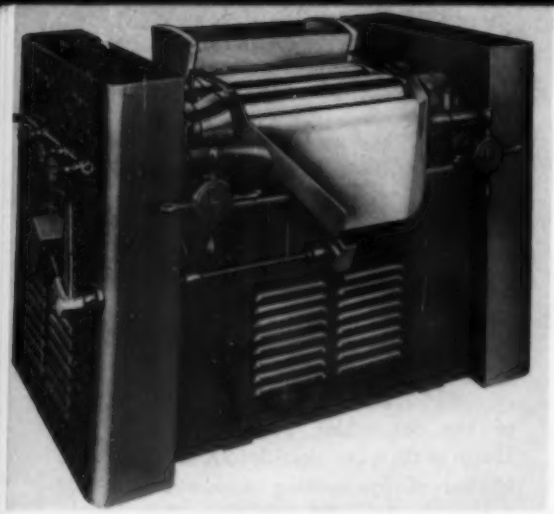
There are three papers by B. A. Rashkovan and V. M. Lebedeva. Two of these are on "Effect of Adding Aromatic Hydroxy Compounds upon the Velocity of the Saponification of Cottonseed Oil by Potassium Hydroxide." One is concerned with the action of phenol, the other with the action of naphthol, hydroquinone, resorcinol, pyrocatechol, pyrogallol. The third is on "Catalytic Action of Aliphatic Alcohols and Aldehydes upon the Velocity of the Soapmaking Process." The fourth in the series is entitled "A New Method of Synthesizing Amides of Carboxylic Acids Directly from the Acids" by A. V. Kirsanov and Y. M. Zolotov.

New Optical Bleach

At the forthcoming British Industries Fair, Hickson & Welch, Ltd., Castleford, England, will introduce a new optical bleach, known as "Photine C", intended for incorporation in soap flakes and other household detergents. "Photine C" is substantive to cotton and synthetic materials of cellulosic origin. It is claimed to attain 86 percent of its maximum brilliancy after four washes.

Case Sealer Shown on Truck

A display truck in which is mounted a full size case sealer is being used by A-B-C Packaging Machine Corp., Quincy, Ill., to introduce their new junior model top and bottom case sealer. This is said to be the first time such a mobile unit has been used in the packaging machine industry. Prospects have an opportunity to see the A-B-C sealer in actual operation at their plants. Engineers, maintenance men, and all those who would have some part in selecting and operating the unit have a chance to view the actual machine and its performance.



New Ross #52T Roller Mill

New Mills Offered

Charles Ross & Son Co., Brooklyn, recently announced a new line of three roller mills. Roller size of the new #52T mills is 14" x 32". The mills feature new type, easily removed hoppers which ride off the outside taper of the rolls. Thin wall roll construction and full length water cooling are included to assure uniform grinding and temperature control. The three rolls revolve at specially determined differential speeds and front roll speeds of 350 RPM are possible without excessive heating due to the specially bored cooling chambers.

The mills are said to be quiet in operation using heavy self aligning roller bearings throughout and helical gears which operate in continuous oil bath lubrication. The new #52T mills feature a specially designed balance apron for uniform pressure of the thin take-off knife along the full face of the roll which eliminates scoring of roll ends.

The frame is of solid one piece cast construction for maximum rigidity to eliminate vibration and to assure accurate roll alignment. The motor is mounted inside the frame of the mill, and, while single speed is standard, two speed motors are furnished in many cases according to processing requirements.

U. S. I. Wall Chart

U. S. Industrial Chemicals, Inc., New York, recently announced that they have available a 14 x 22 inch, two-color wall chart showing 28 insects that are harmful to man. The chart gives a short history of the various insects and is illustrated with a drawing of each insect. The chart is free upon request from U. S. Industrial Chemicals, Inc., 60 East 42nd Street, New York.

Anderson Issues Folder

A six-page folder describing a new purification device for cleaning up small pipelines was recently issued by V. D. Anderson Co., Cleveland. The new device, known as the "Hi-ef Purifier", embodies a new principle of centrifugal element design. It is said to remove 99 percent of all entrainment from vapor lines. The folder lists functions and carries diagrams of typical installations, specifications and prices of these units which range in size from ½" to 2".

Thanite Data Published

A new, eight-page booklet, "Take A Good Look at Thanite", was recently published by Hercules Powder Co., Wilmington, Del. The booklet includes tables of comparative testing data which show the effectiveness of "Thanite" as a toxicant in insecticide sprays. Approved aerosol formulas using the material also are listed.

The booklet points out the advantages of "Thanite" in household sprays, livestock sprays, and aerosols. Technical information about it is given in considerable detail. Results of tests of "Thanite" alone, and in combination with other toxicants, are presented in separate tables for three-minute knockdown, five-minute knockdown, ten-minute knockdown, and 24-hour kill.

New Chlordane Folders

Two folders concerned with application and use of chlordane were recently issued by Velsicol Corp., Chicago. One, concerned with chlordane for termite control, indicates procedure for recognition of subterranean termite infestations and methods for control through the use of chlordane. The information is designed for home owners, and public and private institutions. The other folder relates to control of wireworms and other pests by use of chlordane in tobacco transplant water.

Solvents Data Offered

Aviation-industrial division service section of Fine Organics, Inc., New York, has recently issued several bulletins supplying technical and service data on the "FO" line of solvents, cleaners and emulsions. The bulletins are entitled "Emulsion Cleaners" (Vol. 2), "Safety Solvents" (Vol. 1-4), "Supplementary Technical Information" (Vol. 1-5), and "Instrument Cleaners" (Vol. 1-6).

New Sluys Price Lists

Two catalogues were recently issued by Sluys, Inc., Boechout, Belgium. One deals with perfume essences, bases, fixatives, etc., the other is concerned with flavors and related materials. All products listed are made at and available from the company's plants in Rockford, Mich., Boechout, Belgium, and Roosendaal, Holland. The lists are available in English, Spanish, French, German and Dutch.

Bulletin on Phosphates

Output of phosphate chemicals has more than tripled since 1940 with the industry still expanding rapidly, according to the February issue of *Industrial Bulletin* of Arthur D. Little, Inc., Cambridge, Mass. A 25 percent increase in capacity is due before the end of 1953. Production of phosphorus in 1951 was 160,000 tons compared with the wartime peak of 86,000 tons in 1944.

Prior to 1949, 90 percent of the phosphate industry was in the southeastern States, where there are both large phosphate rock deposits and TVA power for electric furnaces. Because of depletion of rock reserves in Tennessee and lack of cheap power in Florida, the industry will spread westward, the Little Bulletin states. Over 60 percent of our total known reserves of phosphate rock are in Idaho, Montana, Utah, and Wyoming. When current Western expansion—chiefly in Idaho and Montana—is completed, these four states will account for about a third of U. S. phosphorus production.

Most of the new expansion in the phosphate-chemical industry is for sodium tripolyphosphate, according to Industrial Bulletin.

Sanitary Chemicals Section

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Liquid Castile Soap Shampoo
Liquid Coconut Oil Soap Shampoo
Liquid Olive Oil Soap Shampoo
(50% Olive Oil Base)
Shampoo Base Soap

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Liquid Toilet
40%, 30%, 20% Coconut Oil
Potash Vegetable Oil
Soft 40%, Hard 65%, Scrub 20%

PHARMACEUTICAL

U.S.P. Green Soap
U.S.P. Powdered Castile Soap
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This added anti-slip security is a powerful sales feature. And so is the extra hardness "Ludox" gives floor wax. Yet gloss, water-resistance, freeze-resistance and leveling are retained in properly formulated waxes.

Many safety and sanitation engineers specify waxes made with "Ludox"—a variety of specialized formulations now serve many kinds of industrial and public buildings.

Anti-slip waxes with "Ludox" fill a vital industrial need . . . they are an investment in safer footing. That's why the demand for these waxes is growing steadily. Ask your wax supplier about them. Or if you want to manufacture a wax made with anti-slip "Ludox," write for technical information, E. I. du Pont de Nemours & Co. (Inc.), Grasselli Chemicals Dept., Wilmington, Delaware.

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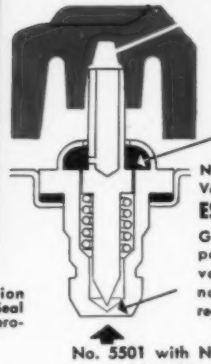
Full Enclosure of Shut-Off Valve Seat
PREVENTS CORROSION
Non-Pierced Valve Opening
ESCAPE PROOF
Gas leakage impossible because valve opening is not pierced until ready to use.

No. 5501 with Non-Pierced Valve Opening

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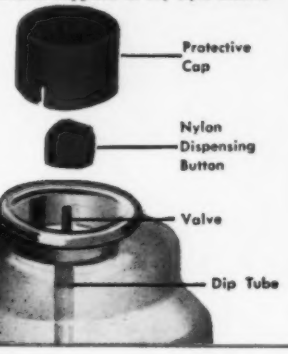

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THE VALVES WITH *Super Seal* SAFETY

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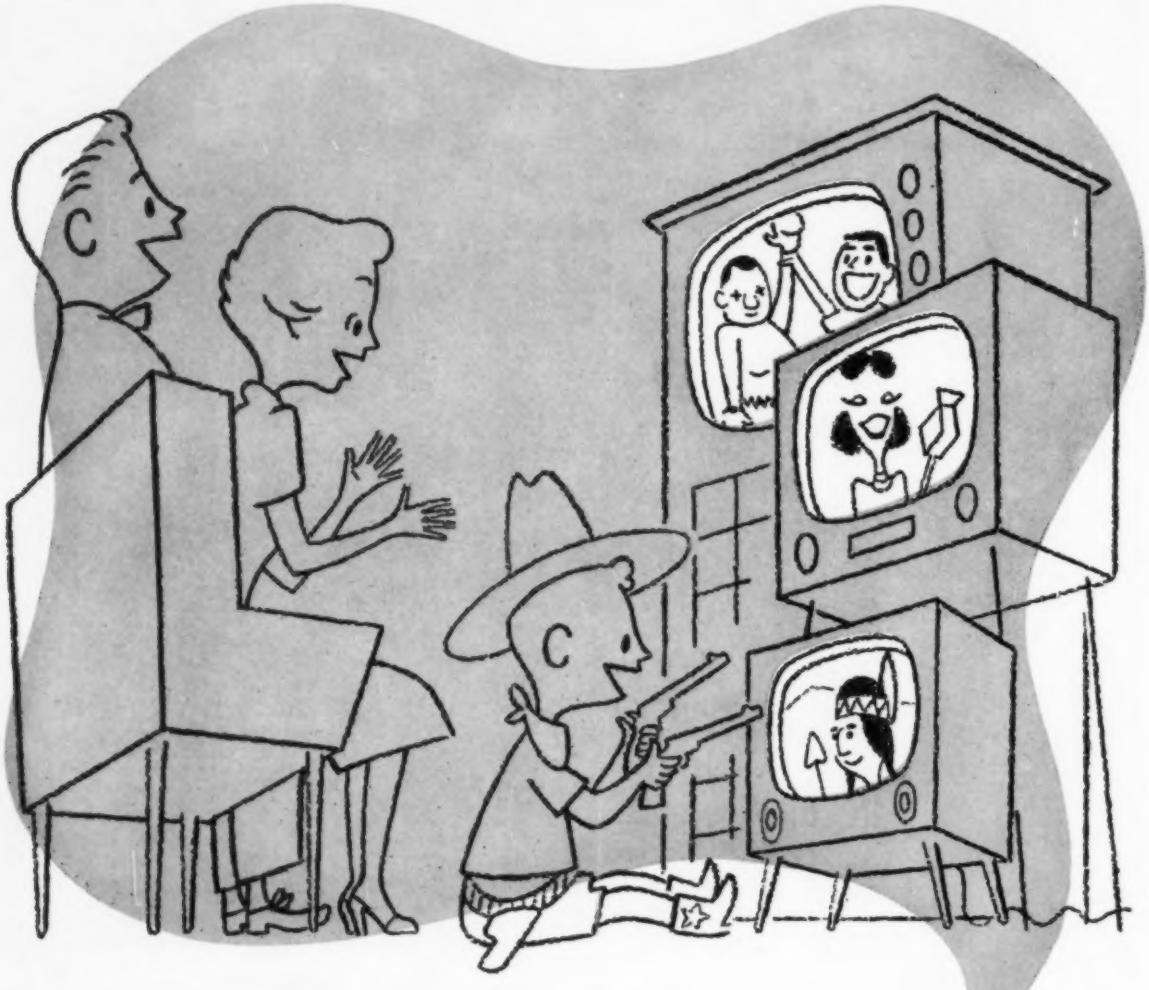

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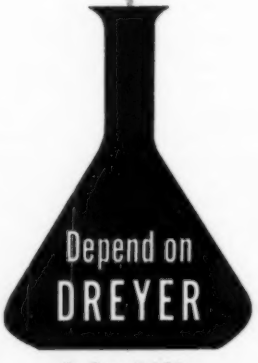

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Just figure the savings now possible through the use of Refined Concord Wax #407 at 47¢ per pound . . . compared with today's high prices of #3 N. C. Carnauba Wax and Candelilla Wax.

Concord Wax #407 makes a water-wax emulsion that is translucent, light in color, absolutely stable. This emulsion has fine particle dispersion, excellent gloss, superior wearing and anti-slip qualities. Ideal for floor waxes, paper sizings and coatings, fruit dips, leather dressings, leather finishes, and many other uses!

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Moorestown, New Jersey

I understand that your new Refined Concord Wax #407 with a Melting Point of 86°C. is available at only 47c per pound. Please send me, without charge, a sample pound of this wax and a sample of emulsion made with #407. Send technical data sheet also.

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COMPANY.....

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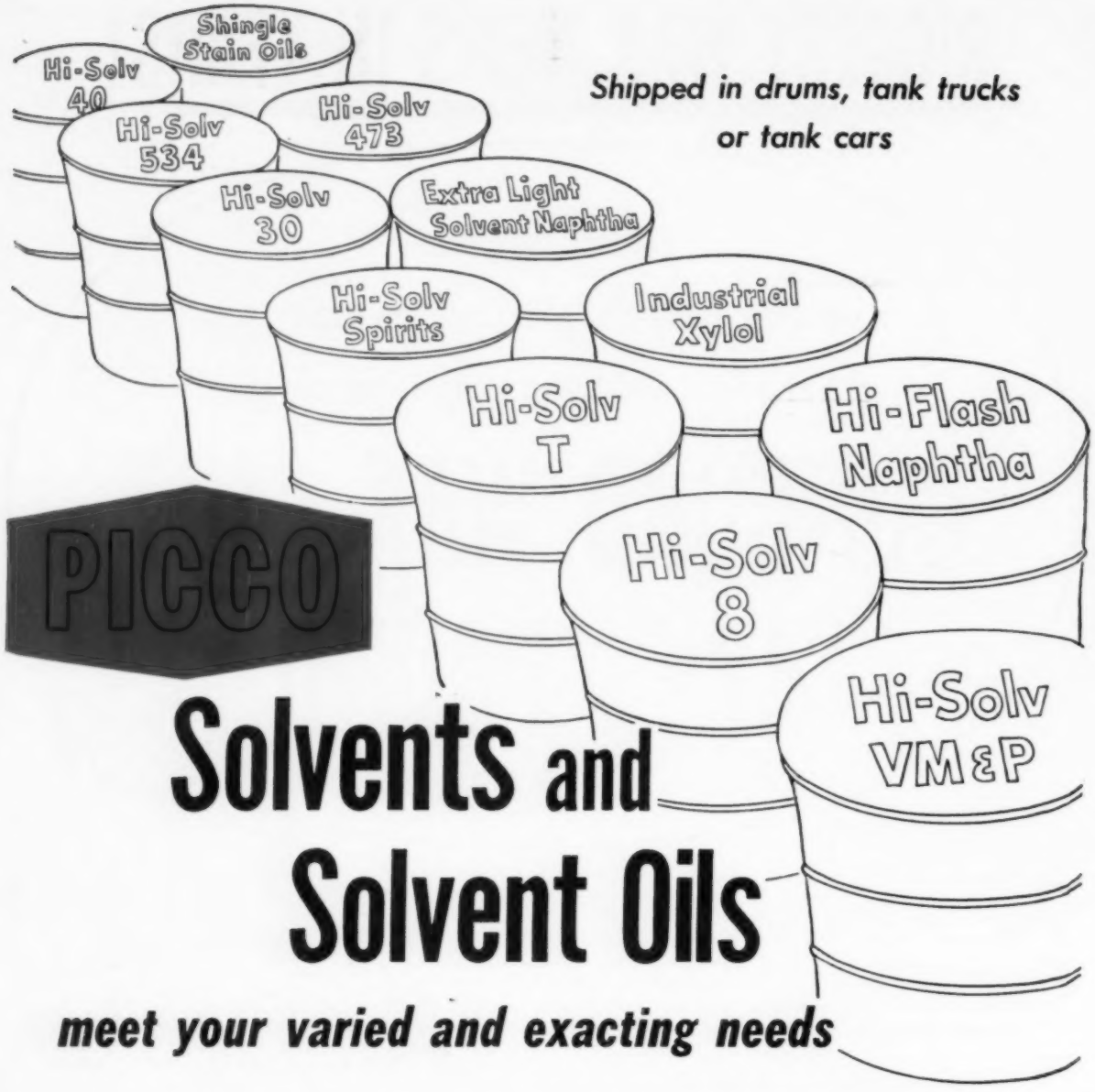

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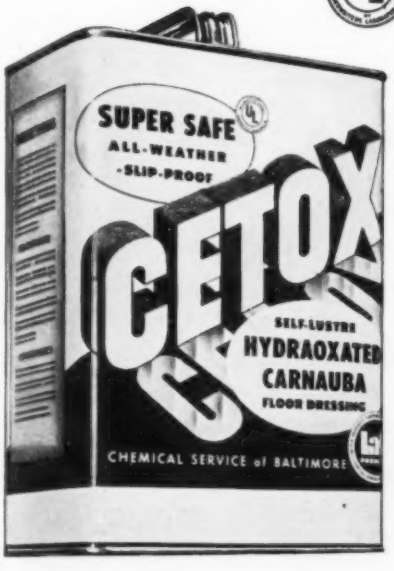
floor dressing that's extra safe all year 'round!



CETOX makes all floors super safe —especially throughout year's 30% inclement weather when the risk of slips and falls is greatest.

Super safe—even under wet shoes

Normally, water underfoot acts as a lubricant. CETOX is extra safe under spilled or tracked in water. You simply won't slip, because CETOX contains Carnauba with the slip hydraoxated out of it. No silicas, or abrasives added. *It's hydraoxated super safe!*

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Self lustre CETOX makes floors dazzling bright. It is a wet mop proof, tough wearing, dirt resisting, protective floor dressing that may readily be removed with the use of a mild detergent. In every way, CETOX is superior. For safety sake . . . put CETOX on your floors.

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Copies of the official proceedings may be obtained by non-members of CSMA directly from the executive offices of the Association. Check for $7.50 must accompany order. Copies to be shipped elsewhere than the U.S.A., Canada, and Latin America carry an additional postage charge of 50¢ each which should be included in check. For further information, write direct to

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- **combines with formaldehyde and water to make a milky emulsion spray**
- **positively will not break down or separate**

WONDERFULLY EFFECTIVE FOR killing all tobacco and cooking odors . . . destroying odors in public rooms, theatres, kitchens, apartment houses, rest rooms, schools, hospitals, taverns. *Leaves a pleasant, fresh after-scent that people really like.* Klenz-Aire Deodorant Oils work in all types of dispensers. We'll be glad to send you generous samples to test in your own containers. Why not write us today!

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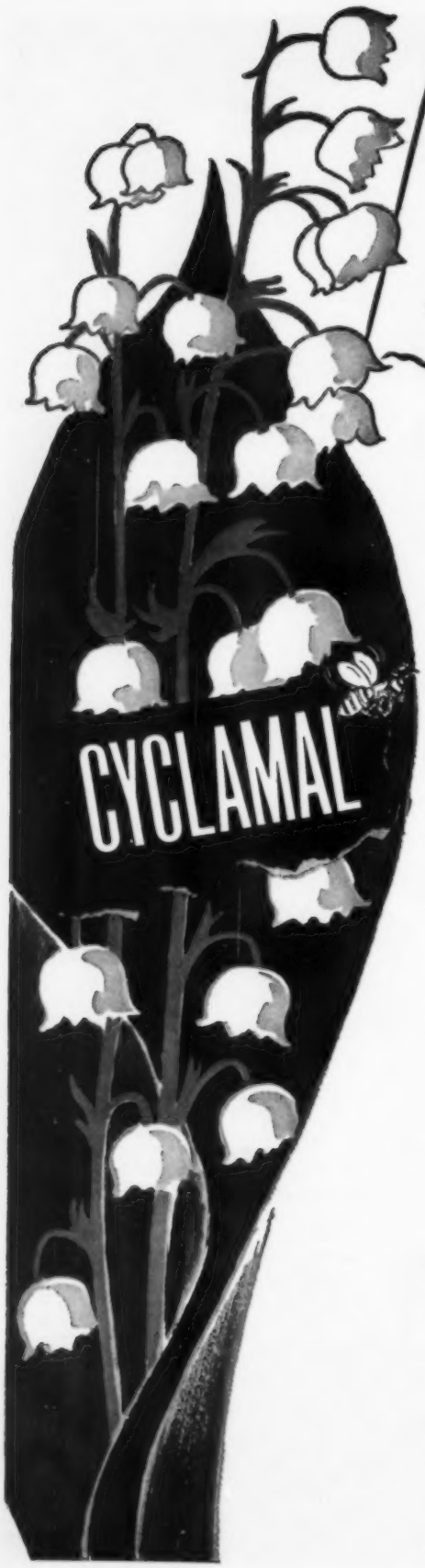

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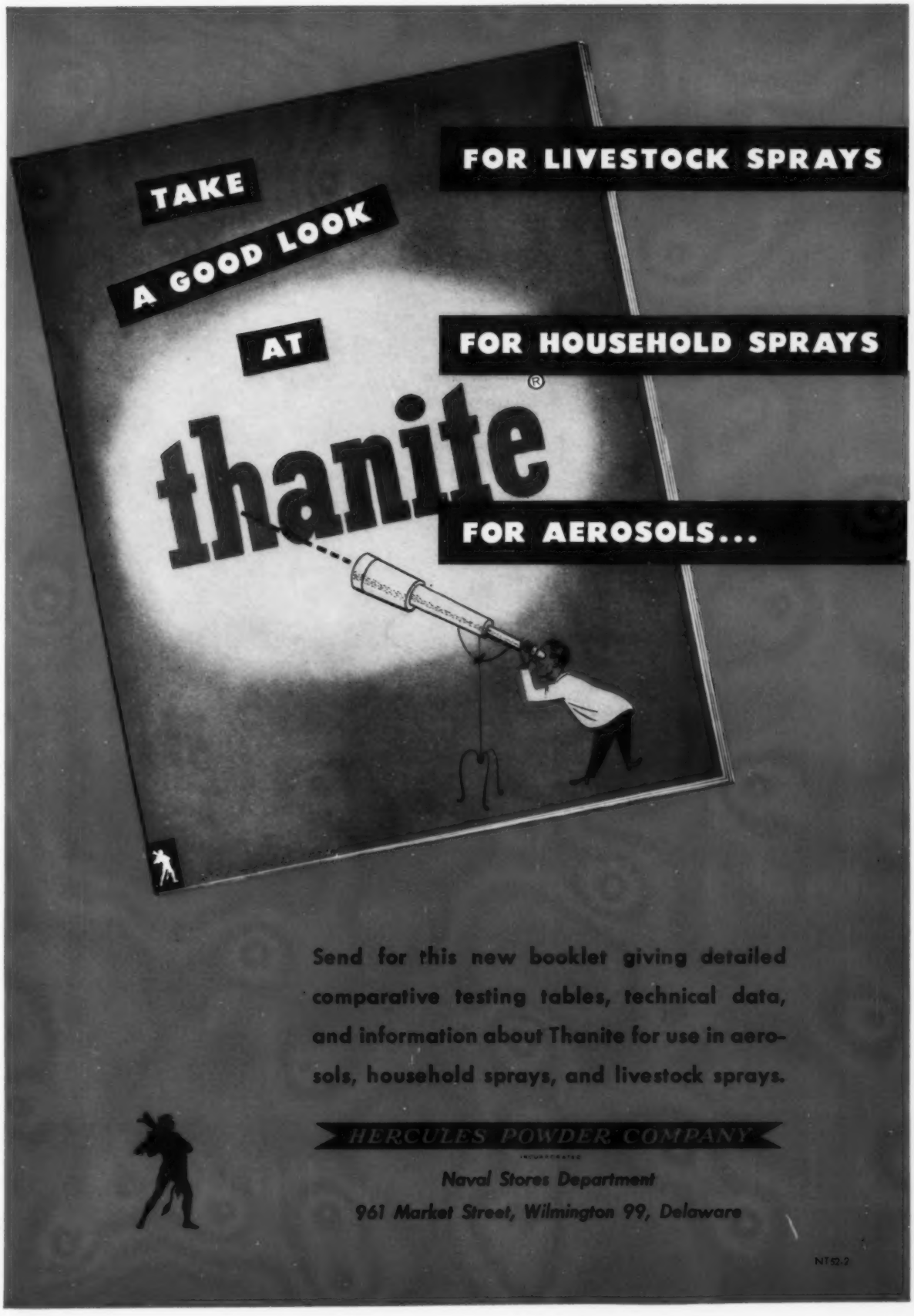
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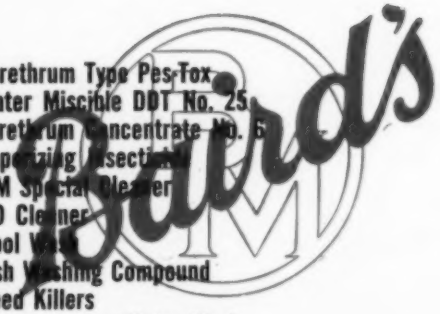

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Absorption and Efflorescence of DDT Deposited on Wood

By B. Berck and B. N. Smallman[1]
Stored Product Insect Laboratory, Winnipeg, Manitoba

WHEN sprays containing DDT are applied on porous materials such as wood, a portion of the DDT deposit is absorbed and presumably becomes unavailable for the killing of insects contacting the surface (7). Under certain conditions, the absorbed DDT may effloresce to renew or augment the deposit on the free surface (3). Most of the information on these phenomena has been derived by inference from studies of the toxicity of treated surfaces to insects. In this study direct chemical measurements were made of changes in the amount of surface-available DDT that may be attributed to absorption and efflorescent of DDT deposited on wood.

Materials and Methods

FIR plywood panels were sprayed with five per cent DDT in oil solution, water suspension, and oil emulsion. One group of 10 pairs of panels was sprayed with each formulation in a laboratory spray tower. One member of each pair was assayed for surface-available DDT one day after spraying, and the other member was assayed 45 days after spraying. The quantity of DDT recovered from plywood panels one day after spraying was also compared with the recovery from glass plates sprayed under the same conditions.

The three DDT formulations,* each containing five per cent (w:v) DDT, were applied to the plywood panels and the glass plates in a laboratory spray tower under conditions that gave deposits of approximately 125 milligrams of DDT per square foot of surface. The mean deposit and its variability for each formulation were determined by spraying 20 glass plates (3″ x 3″) laid out as quadrants of a 6″ x 6″ square for each of five sprayings. The mean deposits and standard deviations obtained with DDT oil solution, DDT water suspension, and DDT water emulsion were 139.8±3.1, 124.4±2.7 and 121.4 ±8.2 milligrams of DDT per square foot, respectively.

Under the same conditions of application, three groups of 10 plywood panels each were sprayed with the three DDT formulations. The panels (3″ x 3″) were sprayed in pairs laid out on the diagonal of a 6″ x 6″ quadrant. One panel from each pair was analyzed for surface-available DDT one day after spraying, and the other panel was stored under cover in the laboratory for 45 days before analysis. Comparisons of the members of each pair provided information on efflorescence during the 45-day period.

Information on loss of DDT by absorption was obtained by comparing the recoveries of DDT from glass plates and plywood panels sprayed 24 hours before. From each group of 20 glass plates used to determine the applied deposit, 10 plates were paired at random with 10 plywood panels sprayed with the same formulation under the same conditions. The difference between the members of each pair was attributed to absorption by the wood of applied DDT.

The surface-available DDT was removed from the plywood panels and the glass plates by stripping each treated surface with 100 milliliters of reagent grade benzene. Each surface was placed at an angle of 45° in a 7″ glass funnel fitted with a plug of glass wool to retain benzene-insoluble matter. A stream of benzene was directed at 90° to the surface from a distance of six inches by means of an all-glass wash bottle pressurized with air at five to 10 mm. Hg. During stripping, the surface was quarter-turned four times. Approximately 85 milliliters of benzene were delivered in this way and the remaining 15 milliliters were used to wash the funnel. The amount of DDT recovered in this way was determined by the Schechter-Haller spectrochemical method (6).

The stripping method appeared to effect complete removal of the available DDT; no significant recovery of DDT from the glass plates or the plywood panels resulted from re-

[1] Contribution No. 2726, Division of Entomology, Science Service, Department of Agriculture, Ottawa, Canada.

* An oil solution of technical grade DDT in No. 9 refined kerosene with 15 per cent xylene as intermediate solvent; a suspension made from C.I.L. 50 per cent wettable DDT; an emulsion made from Invarco 25 per cent DDT emulsion concentrate.

TABLE I

Mean Recoveries of DDT Deposited on Wood

Formulation	Deposit 0 days (mg. per sq. ft.)	Recovery 1 day (mg. per sq. ft.)	Recovery 45 days (mg. per sq. ft.)	Loss 0-1 day (%)	Gain 1-45 days (%)	Total Loss 0-45 days (%)
Solution	139.6	72.9	89.2	47.8	22.8	36.1
Suspension	123.9	73.3	99.7	40.9	37.6	19.5
Emulsion	118.0	78.5	93.2	33.0	19.4	21.0
Necessary difference for significance between means, 5% level				7.8	15.6	7.9

stripping the surfaces one hour later. But stripping the wood panels with benzene appeared to recover some of the absorbed DDT below the surface. When 0.001" was scraped from the surface of plywood panels sprayed with DDT oil solution, the recovery of DDT was about 10 per cent less than the recovery from identically treated panels stripped with benzene. Hence, the DDT measured in this study is recovered mainly from the free surface and a surface layer of wood 0.001" in thickness.

Results and Discussion

THE results are shown in Table I. With all formulations, the recovery of DDT from plywood panels one day after spraying was markedly less than the amount applied. The original deposit, as indicated by recoveries from the glass plates, was absorbed by the wood to the extent that 33 to 48 per cent of it could not be recovered. The mean loss of applied DDT was greatest with the solution and smallest with the emulsion, and the difference is highly significant. This agrees with the finding of Schmitz and Goette (7) that more DDT is retained in the surface layer of poplar wood when deposited from an emulsion than when deposited from a kerosene solution. These authors attribute the difference to a more rapid rate of DDT crystallization from the emulsion than from the solution.

The high loss (40.9 per cent) of the DDT applied as a suspension is surprising, because particles of DDT in water suspension would not be expected to penetrate below the surface of the wood. The apparent absorption in this case may be an artifact resulting from incomplete recovery of DDT at the surface on the day after spraying. At that time, evaporation of the water carrier may not have been complete, so that the wood and the inert material in the suspension still retained enough water to prevent the benzene from reaching all the DDT particles, particularly those occluding the pores of the wood. At any rate, the high loss observed for the suspension is explained more reasonably as resulting from incomplete recovery of DDT deposited at the surface than as "absorption" of DDT particles into the wood beyond reach of the stripping solvent.

The table shows that the recovery of DDT at 45 days was greater than that at one day after spraying, regardless of the type of formulation used. The gain in recoverable DDT during this period was invariable between the members of each pair of sprayed panels. This phenomenon, sometimes called blooming, has been demonstrated visibly by Block (2) as the progressive crystallization of DDT at the surface of asphalt varnish films containing DDT, and has been invoked by other authors to explain the increase with time in the insecticidal activity of porous surfaces treated with DDT solutions or emulsions (3, 5).

At 45 days, plywood panels sprayed with the solution and emulsion formulations showed a mean increase in recoverable DDT of 22.8 and 19.4 per cent respectively over the quantities recoverable one day after spraying, and the difference between the two formulations is not significant. The increase in recoverable DDT observed with these two formulations is attributed to the transfer and deposition of absorbed DDT from a supersaturated solution to the surface, as described by Block (2). Block suggests that once crystallization is initiated at the surface (by temperature fluctuations or dust particles), DDT migrates in solution to the surface to re-establish the equilibrium, which has been upset by the precipitation of the solute. Block's explanation refers to the efflorescence of DDT dissolved in continuous films, such as cellulose acetate films, lacking the heterogeneity of componenets and structure present in wood; but the penetration of DDT in oil solution to considerable depths in wood (7) suggests the establishment of a continuous oil phase permitting migration of absorbed DDT back to the surface on the same general principles suggested by Block.

Plywood panels sprayed with the DDT suspension showed the largest increase in recoverable DDT during the 45-day period, but the absence of a solvent seems to invalidate efflorescence as an explanation. More probably, the apparent increase at 45 days resulted from incomplete recovery of surface-available DDT one day after spraying. If, as suggested before, absorbed water prevented complete recovery of the surface deposit of DDT one day after spraying, subsequent evaporation may have permitted complete recovery of the solvent-available DDT at 45 days. Whatever the cause, the increase in recoverable DDT observed for the suspension is not considered a result of the efflorescence of absorbed DDT.

The table shows that the total loss of applied DDT over the 45-day period was significantly greater for DDT in oil solution than for the other two formulations. The solution showed an immediate high loss of DDT by

absorption, and the subsequent gain by efflorescence failed to restore the same proportion of the applied dosage as found for the emulsion and the suspension. Hence, 45 days after application, about 80 per cent of the original deposit of DDT was recovered from panels sprayed with the emulsion and suspension formulations as compared with 64 per cent from panels sprayed with the solution.

These results suggest that changes in the quantity of surface-available DDT resulting from initial absorption and subsequent efflorescence may account for the changes in toxicity, from an initial low value to a subsequent high value, observed by various authors (3, 4, 5). However, the state, as well as the actual quantity, of surface-available DDT has an important influence on its biological effectiveness. For example, Parkin and Green (5) attribute the increase in toxicity of treated wallboard to the precipitation by mechanical agitation of highly toxic crystalline DDT from a supersaturated solution of low toxicity; treated surfaces, aged for five weeks and not exposed to mechanical stimulus, showed a toxicity no greater than recently sprayed surfaces. However, the same study contains evidence of the importance of efflorescence in restoring the insecticidal activity of wallboard from which the surface deposit of DDT has been removed. The quantity of DDT lost by absorption may be unimportant in its effect on initial toxicity, the determining factor being the rate of crystallization from the solution remaining at the surface. But the absorbed DDT becomes important as a reservoir capable of restoring, by efflorescence, the insecticidal activity of surfaces subject to mechanical removal and possibly chemical degradation of the surface deposit.

Summary

CHEMICAL measurements were made of the amounts of DDT recoverable by stripping the surface of plywood panels with benzene at one day and 45 days after application in oil solution, water-wettable powder suspension, and water emulsion of approximately 125 milligrams of DDT per square foot of surface.

Recoveries at one day after treatment showed losses of 47.8, 40.9, and 33.0 per cent of applied DDT for solution, suspension, and emulsion formulations, respectively. The losses observed for the solution and the emulsion are attributed to absorption by the wood; the loss indicated for the suspension is considered an artifact resulting from incomplete recovery of DDT at the surface.

Recoveries at 45 days after treatment showed consistent increases over the quantities recoverable at one day in the amounts of 22.8, 37.6, and 19.4 per cent for solution, suspension, and emulsion formulations respectively. The increased recoveries observed for the solution and the emulsion are attributed to the efflorescence of DDT from a supersaturated solution within the wood to a crystalline deposit at the surface. The increased recovery indicated for the suspension is considered due not to efflorescence but to changes during the 45-day period that permitted recovery of DDT that had been on the surface but unavailable to the stripping solvent at one day.

Forty-five days after application, 80 per cent of the DDT applied in the emulsion and suspension formulations, and 64 per cent of the DDT applied in oil solution, was recovered from the surface of the wood.

Literature Cited

(1) Berck, B., and B. N. Smallman. "Loss of DDT Residues in Box Cars Carrying Flour". MS.

(2) Block, S. S. "Residual Toxicity Tests on Insecticidal Protective Coatings". *Soap and Sanit. Chem.* *24* (4): 155, 157, 159, 161, 207, 213. 1948.

(3) Bruce, W. N. "Characteristics of Residual Insecticides Toxic to the Housefly". Bull. Illinois Nat. Hist. Sur. *25*, Article 1: 1-31. 1949.

(4) Monro, H. A. U., A. A. Beaulieu, and R. Delisle. "DDT Residues: Their Toxicity to Houseflies on Various Surfaces and Materials". *Soap and Sanit. Chem.* *23* (8): 123, 125, 127, 129, 143, 145. 1947.

(5) Parkin. E. A., and A. A. Green. "DDT Residual Films. 1.—The Persistence and Toxicity of Deposits from Kerosene Solutions on Wall-board". *Bull. Ent. Res.* *38* (2): 311-325. 1947.

(6) Schechter, M. S., S. B. Soloway, R. A. Hayes, & H. L. Haller. "Colorimetric Determination of DDT (color test for related compounds)". *Ind. Eng. Chem.* anal. ed. *17*: 11, 704-9. 1945.

(7) Schmitz, W. R., and M. B. Goette. "Penetration of DDT Into Wood Surfaces". *Soap and Sanit. Chem.* *24* (1): 118-121. 1948.

Adjuvants for Pyrethrins

Adjuvant action of some essential oils and other materials from Australian plants at 2% concentrations increased the toxicity to houseflies of a standard pyrethrum spray as evaluated by the Peet-Grady method. Of the 32 materials examined the following increased toxicity: elemicin, methyleugenol, evodionol; leaf oils from *Backhousia Myrtifolia* (I), *Doryphora Sassafras* (II), *Melaleuca bracteata* (III), and *Zieria smithii* (IV); and wood oils from *Dacrydium frankline* (V) and *Eremophila mitchelli*.

In the absence of pyrethrins these materials were nontoxic, but all stimulated flight whether or not pyrethrins were present. The adjuvant activity of the oils from I, III, IV, and V is due principally to the presence of elemicin, methyleugenol, or both, while that of the oil from II is due to sesquiterpenes and, to a lesser extent to safrole.

The high adjuvant activity of sesamin, N-isobutylhendecylamide, and valone was confirmed. Tests of compounds structurally related to sesamin provided further evidence that the activity of sesamin is associated with the presence of methylenedioxy groups. Eudesmine showed slight activity. Leptospermone, structurally related to valone, showed similar but less marked adjuvant activity. In a series of phenyl methylene ethers, activity ratings were high for myristin and apiol. Activity ratings were high for elemicin and 1,2,3,5-tetramethoxybenzene in a series of phenyl methyl ethers. Activity is apparently related to the number of MeO groups present, while a methylenedioxy group is ineffective unless one or more MeO groups are also present. An allyl side chain imparts greater activity than a propenyl group, saturated chains up to C5 are ineffective. R. W. Kerr, Australia, Commonwealth Sci. Ind. Research Organization Bull. No. 261, 7-31, 1951, through *Chemical Abstracts*, vol. 46, p. 2227.

Newly elected N.S.S.A. officers and directors assembled on platform following their introduction at the annual banquet, Mar. 25: left to right, Charles Solly, Harley Soap Co., Philadelphia, director; Searcy Ridge, Gateway Chemical Company, Kansas City, Mo., retiring president and director; Martin J. Peters, Moore Brothers Co., New York, newly elected president; Arthur Boller, S. C. Lawlor Co., Chicago, treasurer; David Ginsburg, Scientific Supply Co., Denver, vice-president; Philip Shore, Shore Metal Products Co., Los Angeles, secretary of the board; Malcolm Zucker, State Chemical Manufacturing Co., Cleveland, director; T. W. Smith, Bancroft Paper Co., Shreveport, La., southwestern regional vice-president (directly behind Mr. Zucker); Samuel Newman, Creco Co., Long Island City, N. Y., eastern regional vice-president; Herbert J. L. Baum, Mipro Metal Products Co., San Francisco, western regional vice-president; George Flanagan, Federal Varnish Division, Chicago, central regional vice-president; W. A. Tucker, Moellering Supply Co., Fort Wayne, Ind., director; Harold J. Pond, Advance Machine Co., Minneapolis, director and Leo J. Kelly, executive vice-pres.

NSSA Meets, Elects Peters

PANEL discussions on such industry problems as "How to Advertise Effectively on a Small Budget" and "Compensation of Salesmen," as well as a talk on selling techniques and a dramatic presentation of a sales training program were the highlights of the discussion phase of the program of the 29th annual convention and trade show of the National Sanitary Supply Association, held at the Conrad Hilton Hotel, Chicago, March 23-26.

Martin J. Peters, of Moore Brothers Co., New York, was elected president at the business meeting following luncheon March 25. He succeeds Searcy Ridge of Gateway Chemical Co., Kansas City, Mo. Other new officers chosen at the meeting are: Vice-president, David Ginsburg of Scientific Supply Co., Denver; treasurer, Arthur Boller of S. C. Lawlor Co., Chicago; vice-president for the southwest region, T. W. Smith, Bancroft Paper Co., Shreveport, La.; vice-president for the southern region, C. R. M. Sheppard, Fenole Chemical Co., Jacksonville, Fla.; vice-president for the central region, George Flanagan, Federal Varnish Div., Chicago. Two new directors were elected: H. J. Pond, Advance Floor Machine Co., Minneapolis, and Charles B. Solly, Harley Soap Co., Philadelphia.

Holdover members of the board having another year to serve are: Philip Shore, Shore Metal Products Co., Los Angeles, secretary of the board; Samuel Newman, Creco Co., Long Island City, N. Y., eastern regional vice-president; Herbert J. L. Baum, Mipro Metal Products Co., San Francisco, vice-president western region; W. A. Tucker, Moellering Supply Co., Fort Wayne, Ind., director; Malcolm Zucker, State Chemical Co., Cleveland, director, and Searcy Ridge, retiring president, who automatically becomes a member of the board.

Registration for the meeting was the largest in the history of the organization, according to Mr. Ridge in his president's address at the first meeting session, March 24. The number of exhibitors, likewise was at a record level, Mr. Ridge said.

(A list of exhibitors, products shown and names of some representatives begins on another page of this issue.)

Some of the achievements of the N.S.S.A. during the past year cited by Mr. Ridge and for which the board voted to spend money were the installation of a new bookkeeping system in the N.S.S.A. headquarters; publication of the book, "Pick Stars and Sell More," which is now available on a loan basis; a correspondence course for salesmen on the products sold through sanitary supply firms, and the continuation of "News and Views" and "Sanitary Supply Selling." Mr. Ridge said the association now has the largest membership in its history. He also urged members to make themselves heard as individuals rather than by organization on bills now pending before Congress which would affect products of the industry. He thanked those who had made suggestions for the betterment of the association and expressed gratitude for the experience of being president.

In his report as executive vice-president of the National Sanitary Supply Association, Leo J. Kelly pointed out that more members wrote in for information and assistance on various problems during the past year than ever before in his seven years as the association's executive officer.

The work, time and expense involved in preparing the booklet, "Pick Stars and Sell More," an aid in recruiting salesmen, were described in detail by Mr. Kelly. The correspondence training course, which will be limited to 25 sets of instructions, now covers: basic bacteriology, molds and yeasts, history of sanitation in three parts, personal hygiene, communicable diseases, food poisoning (parts I and II), washing windows, walls

Top row, left to right: Don Peatee, Mellocraft Co., Toledo; James Bolan, Iowa Soap Co., Burlington; Leo Kelly, Mort Silverman, Pro-Tex-All Co., Evansville, Ind.; Carl Lien, Lien Chemical Co., Franklin Park, Ill.; Herbert L. Sanders, Ninol Laboratories, Chicago; Jacob Broncato, T. F. Washburn & Co., Chicago; George Dolby and T. P. Annan of Huntington Laboratories, Huntington, Ind.; Joe Loeber, Warren Haviland Corp.; Jack Hirsch, Formula Floor Products Corp., Newark, N. J.; Warren Haviland and A. Eavenson.

Second row: Walter M. Doyle, All South Chemical Co., Atlanta; Marshall L. Magee, J. J. Murray and Ralph Fitzsimmons, T. F. Washburn & Co., Chicago; Mary Jane Kelly, Audrey Fallon, Martha Kelly and Lucille Hentschel of the N.S.S.A. staff; Louis Clark, Protecto Products Co., Pomona, Calif.; Bud Smith, Bancroft Paper Co., Shreveport, La.; George Rupert, Chemical Mfg. & Dist. Co., Easton, Pa., and Russell Young, Davies Young Soap Co., Dayton, O.

Third row: John M. Nykiel, R. W. Boedecker, W. E. Humphreys, R. J. Lampe and R. T. Mottys of Colgate-Palmolive-Peet Co., Jersey City, N. J.; Lacy E. Crain, Conco Chemical Co., Dallas; Mrs. George Theriot, A. B. Wise and E. W. Hayes, Nu-Tone Products Co., Denver; George Theriot, A-1 Supply Co., Dallas; David B. Saltzburg, Iron City Wiping Materials Co., Pittsburgh, Pa.; Mal J. Flanagan, John H. Lawson and Charles Morrison, Federal Varnish Division, Chicago.

Fourth row: Lee Lovinger, Jr., Jules Lovinger, Lovinger Disinfectant Co., Salt Lake City; Winston B. Smillie, Platt & Smillie Chemicals, Inc., St. Louis; Charles A. Phillips, Phillips Supply Co., Cincinnati; M. J. Pindl, Armour & Co., Chicago; James E. Pollak and James A. Puleo, Bobrick Mfg. Co p., Los Angeles; and Edward Duyer, Vonachen Industrial Supplies, Peoria, Ill.; Ann Minns, Robert P. Sheehan, Cameron M. Baird, all of Baird & McGuire, Inc., Holbrook, Mass. and Y. Cid Fernandez, Odorite of Florida Co., Tampa.

and ceilings and some facts about brushes.

A ten-point program for distributor members to follow to increase sales and reduce operating costs was outlined as follows by Mr. Kelly: 1.) Increase selling effectiveness, particularly through use of N.S.S.A. sales aids; 2.) Develop more profitable accounts and merchandise higher profit items more vigorously; 3.) Streamline order handling procedures and try to reduce cost of present order handling methods; 6.) Watch delivery costs, particulary on small orders; 7.) Improve advertising effectiveness; 8.) Make complete analysis of sales outlets to discover how effective a distribution job is being done; 9.) Are salesmen over-servicing unprofitable accounts?, and 10.) Are they under-servicing key accounts.

Cooperative steps manufacturer's representatives can take to assure mutually profitable distributor cooperation were suggested by Mr. Kelly as follows:

1. Provide everything necessary to help the distributor do a profitable merchandising job with his product; 2. Make sure the distributor and his salesman know the best method of demonstrating and selling the product; 3. Help distributor conduct sales meetings so as to further train distributors salesmen; 4. Determine who are the best performing distributors in small, medium and large towns. 5. Study the why, when, where and how of this superior performance and record the information for the sales training assistance of other distributors; 6. Where promotional aids are supplied, be sure to show distributors best ways to use them; 7. Show the distributor how to advertise the product properly; 8. Be in a position to bring the distributor helpful merchandising ideas.

9. Assist the distributor in charting his recruiting need to achieve somewhere near the potential in sales on his product; 10. Maintain sincere, cooperative loyal and helpful attitude toward distributors and keep every promise; 11. Sell your company's policies to your distributors; 12. By your continued interest in your distributors welfare make him realize that your line is the profit one to handle.

13. The manufacturer's representative should realize that the distributors success with his product helps build his own future and that anything that helps the distributor will certainly help him; 14. Be familiar with all the various booklets and sales tools provided by the National Sanitary Supply Association and show the distributor how to use these ideas and tools to build his business; 15. Remember distributors usually are understaffed. They cannot always keep up-to-date on all the various phases of promoting their businesses. Manufacturers' representatives can be of great help to distributors by showing them sales helps; 16. Provide a list of the questions users ask about the product and how these questions are best answered; 17. Provide the distributor with a list of facts that will help him meet competition; 18. Provide detailed information as the proper methods of using the product; 19. Provide a detailed list of various uses as applied to various commercial establishments; 20. Provide a list of related items that can be used and sold with the product; 21. Point out what buyers lose or suffer should they buy something of lesser quality; 22. Provide a detailed list of its users benefit and all the best selling points; 23. Furnish complete technical information in simple language understandable to salesman and users alike; 24. Be sure the distributor knows the limitations of your product and what can go wrong with it; 25. What is the competitive situation? Point out ways to meet it with your product.

Following the reports of the treasurer, Walter O. Krebs of American Standard Manufacturing Co., Chicago, who stated the association had a balance of approximately $97,000, the secretary of the board, Philip Shore, reported on the various meetings of the board. The introduction of the regional vice-presidents and the appointment of the nominating committee preceded the talk on selling, "What's Old" by W. H. Gove of Minnesota Mining and Manufacturing Co., St. Paul. The meeting was adjourned following a sales presentation used for training salesmen. It was given by J. S. Crockett, sales training manager of Minnesota Mining and Manufacturing Co.

Two Panel Discussions

OTHER outstanding features of the program were two panel discussions, one on "How To Advertise Effectively on a Small Budget," the other on "Compensation of Salesmen," and a third talk on voice control and its relation to one's personality.

Opening the discussion of advertising, Carl Lien of Lien Chemical Co., Franklin Park, Ill., declared that effective advertising can be done on a small budget. Advertising, he said, helps to increase volume of sales and "if you sell more, you earn more." Some people, he said, think they can raise volume by adding more salesmen, but actually this is an expensive method. Advertising he pictured as a "lubricant," which makes the work of the salesman on the firing line easier and so cuts the cost of getting an order.

"Advertising," said Mr. Lien, "is one of our lowest cost business tools. Ours is a peculiar business, unlike almost any other, because everyone is a prospect for sanitation supplies. The main purpose of advertising is not to sell, but to convey information about ourselves to the prospect and customer."

Mr. Lien also called attention to some aspects of advertising which too often are not recognized as effective advertising media. "How does your place of business look?" he asked. "Is it presentable? How about the sign? The window decorations? When you get back home it might be well to start making your place of business look sanitary. Get the best sign you

Captions for Pictures on Facing Page

Top row, left to right: Fred Scherer, N. J. Stromstad and Edward P. Hassler, Sterwin Chemicals, Inc., New York; William Plowfield, manufacturers representative, Philadelphia; Charles J. Wood, Superior Rubber Manufacturing Co., Chicago; Edward W. Timm, Palmer Fixture Co., Waukesha, Wis., and Hon. Charles W. McCann, McCann Chemical Co., Louisville, Ky.

Second row: Burton L. Feinson, American Dispenser Co., New York; John Bayorek and Edward Berkowitz, Monessen Candy Co., Charleroi, Pa.; Harry and Mrs. Levit of Chicago and Herman Schwartz, Uncle Sam Chemical Co., New York; Peter French and Marvin Anderson of Louisiana Paper Co., Shreveport.

Third row: Jules Breitenbach, Superior Chemical Co., Houston; W. E. Langford and L. V. Merrill of Armour & Co., Chicago; J. T. Longshore, Rex Cleanwall Corp., Brazil, Ind.; Charles Guss, Chemical Products Co., Omaha; Mr. and Mrs. Charles S. Buschart of U-San-O Corp., St. Louis.

Fourth row: Lawrence W., Al G. and Leo G. Peck, Peck's Products Co., St. Louis; Martin Peters of Moore Brothers Co., New York and Lillian M. Moran of Moran Brush Mfg. Co., Hamden, Conn.; John T. Wilson and Thomas E. Schneider, Tesco Chemicals, Inc., Atlanta.

Fifth row: Gordon M. Baird, Baird & McGuire, Inc., Holbrook, Mass.; D. D. Jacoby, Seminole Supply Co., Jacksonville, Fla.; H. R. Soellner, Wear Proof Mat Co., Chicago; W. C. Swan, Central New York Sanitary Products & Paper Co., Syracuse; Walter Davis, Malter Supply Co., New Orleans; Walston D. Brown, Douglas Products Sales Corp., Rochester, N. Y. and Robert Lockhart of Candy & Co., Chicago.

Sixth row: Gerard J. Gervais, Majestic Wax Co., Denver; Joseph Carselle, Northwestern Sanitary Supply Co., St. Paul and Philip Janvey of I. Janvey & Sons, Hempstead, N. Y.; William F. Van Deven, Essential Chemicals Co., Milwaukee; Harley Peatee and Robert Dunker of Mellocraft Co., Toledo; James H. Wheeler of Essential; Roy J. Sandusky, Kellermeyer Chemical Co., Toledo, and Jacob Kahn of Windsor Wax Co., Hoboken, N. J.

Bottom row: John Freese, Chemical Service of Baltimore; Fred Dunlap, and W. James Reider, George T. Johnson Co., Midford, Mass.; Albert S. Selig and Henry A. Siegel, Selig Co., Atlanta; W. C. Swan, H. R. Soellner and Walter Davis.

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MPANY

Compared with the rest
THEYRE BEST
BY TEST
Deodorant
Blocks

IAL SUAPS . . . SYNTHETIC DETERGE
A PLETE LINE
SOA AND D
FOR ALL

REX C

R OVER 27 YE
ADING MAGA
NITARY SUPPLY FU

FAMOUS FOR

Contest

Establish A DEPENDABLE SOURCE OF SUPPLY

DIRECT IMPORTERS

DUTY FREE

CRESYLIC ACID

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SPOT DELIVERY and for SHIPMENT

FIRST HALF of 1952

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RICHES-NELSON, INC.

Chemicals and Allied Products

342 MADISON AVENUE NEW YORK 17. N. Y.

TELEPHONE: MURRAY HILL 7-7267 CABLE ADDRESS: RICNELCHEM, N. Y.

can find. Take advantage of your windows to let the thousands who pass by daily know what you have to sell. Put in good lights. Make use of wall space, it's cheap. Be proud of what you have to sell.

"Then, there are your trucks. Are they dirty? Remember that they're rolling billboards. Make use of them, but get a professional artist to do the decorating right. Use lots of color, so your truck sign can be seen a mile off."

Most manufacturers, Mr. Lien said, have colorful and informative literature available at low cost and this ought to be utilized for mailing to customers and prospects. Business cards, too, should be used plentifully every day. Usually, he remarked, they are small, rather plain and unimpressive, but they can be improved at low cost.

He told how his salesmen and truck drivers carry three by five inch stickers bearing lists of Lien products and, if given permission, attach these to the customer's phone book, or to the wall near the phone, also on jugs, cans, etc. They too, cost very little, he added.

"If you are not using the N.S.S.A. emblem, available through the association's office," he declared "you're missing a lot. There are the stickers you should be using on your stationery. And booklets you can get from our association headquarters."

Shim Lehrman of A. J. Lehrman & Sons, Harrisburg, Pa., told of his company's use of postcards notifying the customer that a salesman is coming, so that he can start getting his list of needs together. A brochure, advertising his company's line, he said, is left with the customer, instead of a business card, and, with old accounts, a postage-paid envelope is left for use on hurry-up orders.

The Lehrman Co., he continued, has a printed card reading "Please Keep This Room Clean," followed by the company's name and address, which is posted in restaurants and taverns. It is popular with proprietors, he said, and the cost is returned many times over in orders. An announcement that "We have these scarce items," which goes to dealers, schools and other institutions, is also exceedingly effective.

Captions

Top to bottom and left to right: Robert Woodhouse, P. B. Gast & Sons, Grand Rapids, Mich., A. V. Schmidt, Jr., Federal Varnish Division, Chicago, and Fred C. Gast of Gast.

Sam Hauser and Howard Young of Davies Young Soap Co., Dayton; William Lobdell, Indianapolis.

A. N. Marks, Tri State Sanitation Co., Buffalo, N. Y., Clifford Nimis, Jacks Manufacturing Co., St. Paul; Henry J. Brownstein, Hysan Products Co., Chicago.

N. P. Moffett, Krano Products Co., Chicago; Mrs. B. P. London and Mrs. Moffett.

Charles J. Hook, Solvay Sales Division, Allied Chemical & Dye Corp., New York; F. P. Boehm, Solvay, and A. Robins, Cartier Chemical Co., Montreal, Canada.

Leslie Finch and Carl Farrans of Parker Scott Co., Chicago, and A. Roy Allison and W. N. DeMuth of Stevens Grease and Oil Co., Cleveland.

A. H. Bernet, Janitors Supply Co., Cincinnati; John Kane and Martin Peters of Moore Brothers Co., New York and Marvin R. Edwards of White Star Sales Corp., Jacksonville, Fla.

The National Sanitary Supply Association's film on floor cleaning, Mr. Lehrman declared, has been very effective in stimulating orders. He told how it had been used before large groups at the Harrisburg "Home Show." Latest of his advertising ideas, he said, is a two-part, postage-paid card, asking the recipient, if he has any floor maintenance problems, to check and return it, and promising that "We'll solve it for you, or go blind."

Most floor maintenance problems, he explained, are due to the large turnover of employees. The Lehrman free instruction service trains men on whom the customer can depend. It is an excellent good will builder, he asserted.

Discusses Advertising

LACY E. Crain, of Conco Chemical Co., Dallas, Texas, discussed the need for determining in advance what is expected to be accomplished by advertising and then shaping the program to attain that end. Among advertising media not generally recognized as such he listed labels as of foremost importance. Labels, he said, are "advertising on the move," and since they often give the customer his first impression of a company, they should be designed with great thought and care. Also mentioned by Mr. Crain were commercial displays at trade shows and other events as effective advertising media. He concluded by

Federal SIL-LOX

Fortified with LUDOX* COLLOIDAL SILICA

with SIL-LOX *you get*

- ALL GLOSS SLIP RESISTANT
- SELF POLISHING BRILLIANCE
- WATER RESISTANCE
- RESISTANCE TO FREEZING

SAFETY ENGINEERED FOR HAZARDOUS FLOORS

Sil-Lox dries in a matter of minutes to an exceptionally lustrous finish. It's self-polishing and water resistant. It's *siliconized*—fortified with LUDOX* colloidal silica, which is harder than wax itself.

Federal Sil-Lox has been tested by the Underwriters' Laboratory, Inc. It carries their approval and is listed with them as an anti-slip material.

Safety is an important factor for *all* floors. Sil-Lox, because it is Siliconized, is slip resistant, gives floors a safer, longer wearing coating of extra beauty.

Every commercial floor where wax is now used needs this new, slip-resistant siliconized floor coating. The market is tremendous—why not write now for more information on this newest innovation in floor coatings.

***Trade Mark of E. I. Du Pont de Nemours & Co., Inc., Reg. U. S. Pat. Off.**

Federal VARNISH DIVISION

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showing a series of slides of examples of his company's direct mail pieces, with explanations of their purposes and results.

David Ginsburg of Scientific Supply Co., Denver, Colo., set up a hypothetical company doing a business of $20,000 a month. He examined the types of advertising suitable for budgets of one-half of one percent of this sum, also one or two percent.

The one-half of one percent budget, he said, necessarily would be limited in its effectiveness and the best material to use would be advertising novelties that can be left by the salesman. He described his company's use of book matches with advertising on the back. When a visitor calls at the office, he said, his name is printed on the cover of a set of 10 books which are presented to him before he leaves. This idea has proved a successful means for making the man remember Scientific Supply Co., he declared.

Pencils, capped with a miniature reproduction of a company's product, such as a paint can, are effective advertising, Mr. Ginsburg said. He also pointed out possibilities for getting publicity in local newspapers for very little cost. As an example he cited the case of a newspaper article on his own company's new building.

Continuing, Mr. Ginsburg said that a company budgeting one percent of income for advertising might find direct mail highly effective, although it is costly on a large scale. "Be sure to offer something specific" he advised, "or you will not get very many returns." For the company appropriating two percent for advertising, he suggested use of all media previously mentioned, plus purchase of space in telephone directories and community organization publications. Support of their programs, in this way, he said, is a good will builder.

"An occasional advertisement," Mr. Ginsburg warned, "wastes money. Keep it up continuously. Repetition is what does it and you've got to pound and pound."

Last speaker on the advertising panel was Frank Hoffman of F. W. Hoffman and Co., Philadelphia, who offered the advice to "Get someone else to do your advertising for you." Explaining what he meant, he said, his company keeps on hand over 200 different pieces of advertising material from scores of manufacturers and uses these as inserts with statements and practically every letter sent out.

He told also, how his company uses considerable space in the telephone directory, broken down into small inserts under various commodity heads, so that a customer searching for a particular item learns readily that Hoffman can supply his needs. He cautioned, too, about keeping mailing lists up to date. At his home, he said, mail still comes for one member of the family who has been dead 19 years and for another who has been gone eight years.

Salesmen's Compensation

OPENING discussion of the topic "Compensation of Salesmen," J. T. Opie of Opie Brush Co., Kansas City, Mo., suggested that the subject should have been worded "Proper Compensation of Salesmen." Plans for paying salesmen, Mr. Opie pointed out, are many and varied and all are either good, bad or otherwise. The criterion for judging them all, he suggested, should be the question "Is your salesman happy?" If turnover is frequent and fast the plan is bad, he declared and it is positively bad if the man leaves you to join a competitor, or to start a competitive business of his own.

Salesmanship, he indicated, ranks as a skilled profession and from a public relations standpoint it is highly important to any businessman. Recognition should be given, he said, to a man's natural desire to make money for himself, so that he can enjoy a high standard of living, own a car, educate his children and lay up something for old age.

Concluding, he cited figures from a survey of over 300 firms which showed that 24 percent of them paid salesmen a straight salary; 43 percent paid salary and commission; seven percent paid salary and bonus; and 22 percent paid a straight commission.

S. J. Bockstanz of Bockstanz Bros. Co., Detroit, in discussing advantages and disadvantages of different compensation plans, pointed out that the straight salary plan gives security but no incentive. The salary and bonus plan, he continued, provides security with some incentive, while the straight commission plan, he asserted, "is a 100 percent incentive plan."

The successful salesman, Mr. Bockstanz continued, needs something more than a smattering of information regarding the product he sells. He discussed the change in the consumer's attitude toward the sanitary supply industry. It is due, in part, he said to dropping of the term "janitor supplies" and substituting the term "sanitation supplies." With increased understanding of the importance of sanitation, he argued, standards of sanitation will improve and with them the qualifications for salesmen in the sanitary supply industry will rise.

"To get good salesmen," he advised, "treat them fairly and pay them well." He suggested a four-way test of a good compensation plan: "is it the truth; is it fair to all; will it build good will; will it be beneficial to all concerned."

E. H. Paull of United Janitor Supply Co., Seattle, Wash., final speaker on the symposium, characterized his firm's compensation plan as closely akin to a profit sharing plan. Newcomers, he explained, get a salary until such time as they decide for themselves that they want to work on commission. Each man on commission, also gets, under certain conditions, a percentage of gross profits. Salesmen furnish their own cars and pay their own expenses, and they are also charged one-half of the delivery expense. Purposes and advantages of these and other details were described by Mr. Paull at some length.

This plan, Mr. Paull said, was put into effect 10 years ago, when he had one salesman and even though their number has since increased, it is still working well. He doubted that it would be considered effective if there were a constant turnover of salesmen. Since he has not had to hire a new man for three years, he felt that this indicates that his sales staff is satisfied.

"Our plan may not be the final answer to the prayer for an ideal plan for paying salesmen," he concluded, "but so far as I am concerned, there

(*Turn the Page*)

Top, Walter Krebs (center) and Charles E. Krebs (right), American Standard Manufacturing Co., Chicago. Leo Lichtenberg and Adolph Noel, Chicago Sanitary Products Co. Guy P. Robbins, Geo. B. Robbins Disinfectant Co., Cambridge, Mass.; Robert Solly, Harley Soap Co., Philadelphia and Frank J. Murtough, Murtough Supply Co., Tacoma, Wash.

Philip Shore, Ruth Boas, Shore Metal Products Co., Los Angeles and Samuel Newman, Creco Co., Long Island City, N. Y.

is nothing left to be desired."

Final speaker at the 29th annual convention's last session March 25 was Mrs. Lucile La Chappelle, noted authority on voice control, whose subject was "You Are Better Than You Sound." Suggesting that there is much to be desired in the salesman's voice, she presented appropriate vocal renditions of typical speaking voices, ranging from the "nasal," to the "whisperer," and the "guttural," "chesty" and others. She explained why each is ineffective, especially when used by a salesman and to this she added suggestions on what to do about it.

"Few people know what they sound like," Mrs. La Chappelle concluded. "For a good speaking voice, the body, the mind and the voice must all be saying the same thing."

EXHIBITORS' LIST

Soaps

Armour & Co., Chicago. Complete line of soaps and synthetics for sanitary maintenance trade. W. E. Langford, sales manager, S. M. Kurrie, midwest div. sales manager.

Bostwick Laboratories, Inc., Bridgeport, Conn., introduced "Valor," and antiseptic hand lather soap for medical men, food handlers, etc., also a very new "Valor" dry foam spot remover in aerosol dispenser. J. Schenberg, vice president.

Colgate-Palmolive-Peet Co., Jersey City, N. J., introduced its newest product, "Arctic Syntex H D," a heavy duty synthetic detergent for laundering varied types of textiles, on-location rug cleaning, also for motor vehicle cleanup and other applications. J. M. Nykiel, sales manager, R. W. Boedecker, technical sales dept.

Davies-Young Soap Co., Dayton, O., showed "Dysh," a new concentrated liquid detergent hand dishwashing compound, with "Dyjet" measuring dispenser.

Also new was "Cirene" floor wax. H. G. Young, Lou Pallak.

Essential Chemicals Co., Milwaukee, Wis., made first showing of "Sof-Touch" antiseptic powdered or liquid soap; "Dermex" medicated germicidal soap; "D-Flox," new soapthetic for laundries, institutions, etc., J. H. Wheeler.

Harley Soap Co., Philadelphia Pa., showed three new items—"Lustro-Kleen" concentrated synthetic floor cleaner; "Wintra-Dis," a wintergreen scented disinfectant; and a concentrated pine scrub soap. Chas. B. Solly, president; Murphy Cohen, sales manager.

Mione Mfg. Co., Collingdale, Pa., presented powdered, liquid and paste hand soaps, including a new item with "G-11" added. C. V. O'Donnell, sales manager.

G. H. Packwood Mfg. Co., St. Louis, Mo., displayed powdered and granulated industrial skin cleaners, dishwashing compounds, etc. A. J. McLaughlin, midwest div. sales manager.

Peck's Products Co., St. Louis, Mo., made first showing of "Pepco" powdered hand cleaner and "Keep" all-purpose liquid floor cleaner. Also in company's metal products line a newly designed sponge and mop pail, new light dust pan. Leo G. Peck, president, Woodrow Peck, A. G. Peck.

Sugar Beet Products Co., Saginaw, Mich., featured a new "S B S 30" waterless hand cleaner, along with standard line of industrial powdered soaps with improved detergency. Lawrence Lee, sales manager.

Chemical Specialties

Airkem, Inc., New York, demonstrated "Airkem" odor counteractant, containing chlorophyll, and explained the special formulation service for control of specific odor problems peculiar to an individual industry. Jas. C. Scully, sales manager.

Baird & McGuire, Inc., Holbrook, Mass., had two new products, "S-D" antiseptic sanitizing cleaner and "Mint-o-Phene" germicide. Gordon M. Baird, president. Cameron Baird, Keith Wadsworth.

Buckingham Wax Co., Long Island City, N. Y., introduced five new products, an emulsion floor finish with safety features; a water emulsion base wax; a conductive floor finish; a mist disinfectant; and a liquid hand soap with G-11. Irving Wexler, owner.

Candy & Co., Chicago, full line of floor waxes, polishes, cleaners, and other specialty

At the head table during the luncheon Mar. 24: left to right, Walter Krebs of American Standard Manufacturing Co., Chicago, treasurer; Al Candy, Jr., Candy & Co., Chicago, director; unidentified—W. A. Tucker of Moellering Supply Co., Fort Wayne, Ind.; W. H. Gove, Minnesota Mining & Manufacturing Co., St. Paul; W. K. Fawcett, Guardian Chemical Co., Atlanta; J. S. Crockett, Minnesota Mining & Manufacturing Co., St. Paul; Malcolm Zuckot, State Chemical Mfg. Co., Cleveland.

products, also "Cand-dox" floor waxes with "Ludox" collodial silica for anti-slip.

Chase Products Co., Maywood, Ill., showed new "Ready-Mix" rodent bait with concentrated warfarin, available in packages or bulk. C. W. Svendsen, president.

Chemical Service of Baltimore, Baltimore, Md., introduced "Sanitreet," new liquid floor sweeping compound with high dust absorbing factor and containing wax. Bernard R. Freudenthal, president.

Federal Varnish Div., Chicago., made first showing of four new products: "Sila-Gloss," a siliconized floor coating; "Silox" anti-slip floor coating; "Federal C P R," floor finish; and "Kleen-Sheen" maintenance paint. John H. Lawson, president; Mal Flannagan, George Flannagan and G. E. Doerr, vice presidents.

Franklin Research Co., Philadelphia, Pa., featured "Dust-Chek," a concentrated liquid emulsion for mops and dust cloths, along with regular line of maintenance products. John O. Blankenbiller, sales manager, Richards H. Jarden.

Fuld Bros., Inc., Baltimore, Md., made first showing of "Vitozone" deodorizer. Joseph Fuld, vice president and sales manager.

Hysan Products Co., Chicago, made first showing of "Hytron" electric odor dostroyer; "Mayntane" liquid floor maintenance compound; and a new automatic dispensing unit for dishwashers. Henry J. Brownstein, president.

International Metal Polish Co., Indianapolis, displayed a new "Blue Ribbon" silicone remover, for removing silicone film from motor car surface prior to cleaning; also showed several new additions to auto chemical line. C. E. Blackburn, general manager.

Frank Miller & Sons, Chicago, displayed floor sweeping compounds in three grades for different type floors. Frank Miller, president; George Bruesch, sales manager.

Oil-Dri Corp. of America, Chicago, showed oil absorbents and a new non-slip paint. Nick Jaffe, president, Woodrow A. Jaffe, sales manager.

Piatt & Smillie Chemicals, Inc., St. Louis, Mo., chemical specialties, including liquid detergents, antiseptic rug shampoo, metal soap absorbent and other items. Wm. Smillie, president.

I. Schneid, Inc., Atlanta, Ga., featured its new "Para-phyll" para deodorant block with chlorophyll and announced availability of blocks with or without chlorophyll. Morris L. Weinstein, sales representatve.

Solvay Sales div., Allied Chemical & Dye Corp., New York, showed heavy industrial and maintenance chemicals, alkalis, etc., R. Boehm, technical service director and numerous product specialists.

Sterwin Chemicals, Inc., New York, showed "Roccal' sanitizing agents and other quaternary ammonium compounds. Edw. P. Hassler, sales manager.

Tech Soap Co., Chicago, had a new "Tergisol" floor cleaning detergent, with germicidal, fungicidal and deodorant properties. H. L. Aronson, president.

Uncle Sam Chemical Co., Inc., New York, introduced a new para blockette with chlorophyll and showed full line of disinfectants, insecticides, waxes, soaps and other chemical specialties. Herman Schwartz, secretary.

James Varley & Sons., Inc., St. Louis, Mo., featured first showing of "Mister Foam," a dispensing unit for use with "Sunny Suds," liquid detergent for hand dishwashing. Jack C. Varley.

Virginia-Carolina Chemical Corp., Richmond, Va., featured its new "Vicarlite," odorless, non-poisonous liquid acid bowl cleaner; also "V-C Bacate" sanitizing tablets for machine and manual dishwashing. R. J. Keller, sales manager.

T. F. Washburn Co., Chicago, showed floor waxes, seals, etc., and representatives explained the new cooperative promotional plan for "Sure Step" wax with "Ludox," collodial silica for slip resistance. M. L. Magee, vice president and sales manager.

Windsor Wax Co., Hoboken, N. J., had a new anti-slip water emulsion paste wax; a new wax with chlorophyll for dust control on yarn sweepers; also "Kare" wax with roach and ant killing insecticide. Jacob Kahn, president.

Floor Machines

Advance Floor Machine Co., Minneapolis, Minn., made first showing of their "Speedboy" electric floor machine in 12- and 15-inch sizes, also a de luxe 19-inch model. Harold J. Pond, president.

Breuer, Electric Mfg. Co., Chicago, showed four improved industrial vacuum cleaners, scrubbing and polishing machines from their

(*Turn to Page 157*)

C. H. Crist and J. R. Chocola, Michigan Co., Lansing, and William Laitner, Laitner Brush Co., Detroit.

Sam Feldman, National Janitors Supply Co., Detroit and Irving Wexler, Buckingham Wax Co., Long Island City, N. Y.

Helen Schmitt and Gene Thirolf, James Varley & Sons, St. Louis.

A. O. Fisher, S. C. Johnson & Son, Inc., Racine, Wis.; Frank W. Hoffman, F. W. Hoffman & Co., Philadelphia; E. L. Grant of Johnson.

Searcy Ridge, Gateway Chemical Co., Kansas City, Mo., N.S.S.A. president; Leo J. Kelly; Philip Shore, Shore Metal Products Co., Los Angeles, secretary of the board; S. P. Solomonson, Jr., Dixie Disinfecting Co., Dallas, southwestern regional vice-president; Guy P. Robbins, George B. Robbins Disinfectant Co., Cambridge, Mass., director; Herbert J. L. Baum, Mipro Metal Products Co., San Francisco, western regional vice-president; John Walsh, formerly of Tesco Chemicals, Inc., Atlanta, vice-president; and Samuel Newman, Creco Co., Long Island City, N. Y.

Hooker Chemical Guide
(ONE OF A SERIES)

Use this handy reference to save time in selecting high-quality chemicals.

HOOKER CHLOROBENZENES

MONOCHLOROBENZENE

Synonym: Phenyl Chloride
Formula: C_6H_5Cl
Appearance: clear, colorless liquid

TYPICAL PROPERTIES

Molecular Weight	112.5
Freezing Point	—44°C
Distillation Range	131.2° to 132.2°C
Specific Gravity, 15.5°/15.5°C	1.114

USES

INSECTICIDAL INTERMEDIATE: DDT and other insecticides.

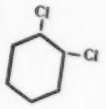
DYESTUFF INTERMEDIATE: sulfur black and brown dyes.

CHEMICAL INTERMEDIATE: organic synthesis.

SOLVENT: paints, varnishes, lacquers, paint removers; general use.

HEAT TRANSFER FLUID: suggested for condensing vapor systems, such as glass enameled vessel jackets, which cannot stand high steam pressures.

ORTHODICHLOROBENZENE



Synonym: 1, 2-Dichlorobenzene
Formula: $C_6H_4Cl_2$
Appearance: clear, colorless liquid

TYPICAL PROPERTIES

Molecular Weight	147.0
Freezing Point	—18° to —22°C
Distillation Range	4° incl. 179.5°C
Specific Gravity, 15.5°/15.5°C	1.310

USES

INSECTICIDE: termites, powder post beetles, wood borers, midges, flies, roaches, bed bugs, etc.

SOLVENT: gums, resins, tars, rubber, greases, oils, fats, waxes. Readily emulsified.

DEGREASING AGENT: metals, leather, hides, wool.

INTERMEDIATE: organic chemicals, dyestuff intermediates.

IN COMPOUNDED SPECIALTIES: metal cleaners, polishes, paint and varnish removers, etc.

HEAT TRANSFER FLUID: suggested for condensing vapor systems in temperature range 180° to 200°C.

PARADI®

(Hooker Paradichlorobenzene)
Synonym: 1, 4-Dichlorobenzene
Formula: $C_6H_4Cl_2$
Appearance: white crystals
7 SIZES—Pea No. 1, Pea No. 2, Rice No. 1, Rice No. 2, Rice No. 3, Granulated, Powdered.

TYPICAL PROPERTIES

Molecular Weight	147.0
Melting Point	53°C
Boiling Point	173°C
Flash Point	73°C

USES

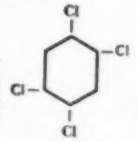
INSECTICIDE—REPELLENT: peach tree borers, black peach aphids, tobacco blue mold, clothes moths, carpet beetles, fish moths, garden centipedes.

HERBICIDE: used in cranberry bogs.

DEODORANT: in sanitary specialties, disinfectants.

INTERMEDIATE: organic synthesis; many dyestuffs including sulfur, azo, anthraquinone.

1, 2, 4, 5-TETRACHLOROBENZENE



Formula: $C_6H_2Cl_4$
Appearance: white flakes

TYPICAL PROPERTIES

Molecular Weight	215.9
Chlorine Content	65.7%
Melting Range	137.5° to 140°C
Distillation Range	240° to 246°C

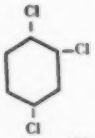
USES

INTERMEDIATE: 2, 4, 5-trichlorophenol; 2, 4, 5-trichlorophenoxyacetic acid; azo dyes.

INSECTICIDE: slightly active; suggested for dusting powder formulations.

IMPREGNANT: for fire and moisture resistance, electrical insulation; temporary protection in packaging.

TRICHLOROBENZENE, Tech.



Formula: $C_6H_3Cl_3$
Appearance: clear, almost colorless liquid

TYPICAL PROPERTIES

Molecular Weight	181.5
Freezing Point	10°C
Distillation Range	205° to 235°C
Specific Gravity, 15.5°/15.5°C	1.465

USES

INSECTICIDE: soil poison for termites.

SOLVENT: fats, oils, waxes, resins; crystallization solvent.

HEAT TRANSFER MEDIUM: condensing vapor systems, 210° to 300°C.

DIELECTRIC FLUID: transformers.

INTERMEDIATE: dye intermediates, other organic chemicals.

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Improving

Floor Product Selling

By Charles L. Lapp
Associate Professor of Marketing, Washington University

IN a recent customer reaction survey which was conducted by the author, it was found that the selling of floor maintenance materials to institutional and industrial buyers could be improved. In fact some of the purchasing agents went so far as to say, "I would rather buy from a firm which issues a quarterly catalog or provides telephone service than through the salesmen who call on me". Some buyers complained that the salesmen of today were not as good as they were ten years ago.

Lack of Product Information

BUYERS stated that they were not very interested in a salesman giving them the constituents of cleaners or waxes. What they wanted to know was more about the uses of such products under various conditions of application. It was felt that too many salesmen failed to keep their catalog and price lists up-to-date. As a result frequently such salesmen would order the wrong item or quote incorrect prices. A number of purchasing agents suggested that salesmen selling to them regularly should maintain purchasing records to make reordering easier and quicker.

Some of the buyers interviewed charged that salesmen in order to obtain an order promised delivery dates which they knew their company would not and could not fulfill. Still other buyers complained that there were too many salesmen who felt it was their prerogative to make overstatements and false claims. This criticism seemed to prevail more in respect to self-polishing waxes than in the case of other floor maintenance products.

Some buyers stated that salesmen called on them too frequently, while others stated that salesmen called only sporadically and not nearly often enough. Many buyers complained about the salesman who made a definite appointment and then failed to keep the appointment or didn't show up on time. Although most buyers equally disliked the salesman who merely by chance dropped around to see them. Particularly institutional purchasing agents felt that salesmen should plan their calls in order to make them at time when they were least busy. It may often be found that the golden hours of selling floor waxes and cleaners are nights and Saturdays when uninterrupted demonstrations can be made.

Salesmen came in for criticism on the one hand for using high pressure selling techniques, whereas on the other hand it was felt some were too indifferent. One purchasing agent stated, "there are some salesmen who won't consider an interview closed after not getting an order; they insist on getting personal and try to get me to go out for a drink and get an order that way". It was felt too many salesmen depended upon fast talk alone to obtain orders. The salesman who handled objections by shrugging his shoulders, raising his eyebrows, or showing some other sign of disgust came in for his share of censoring.

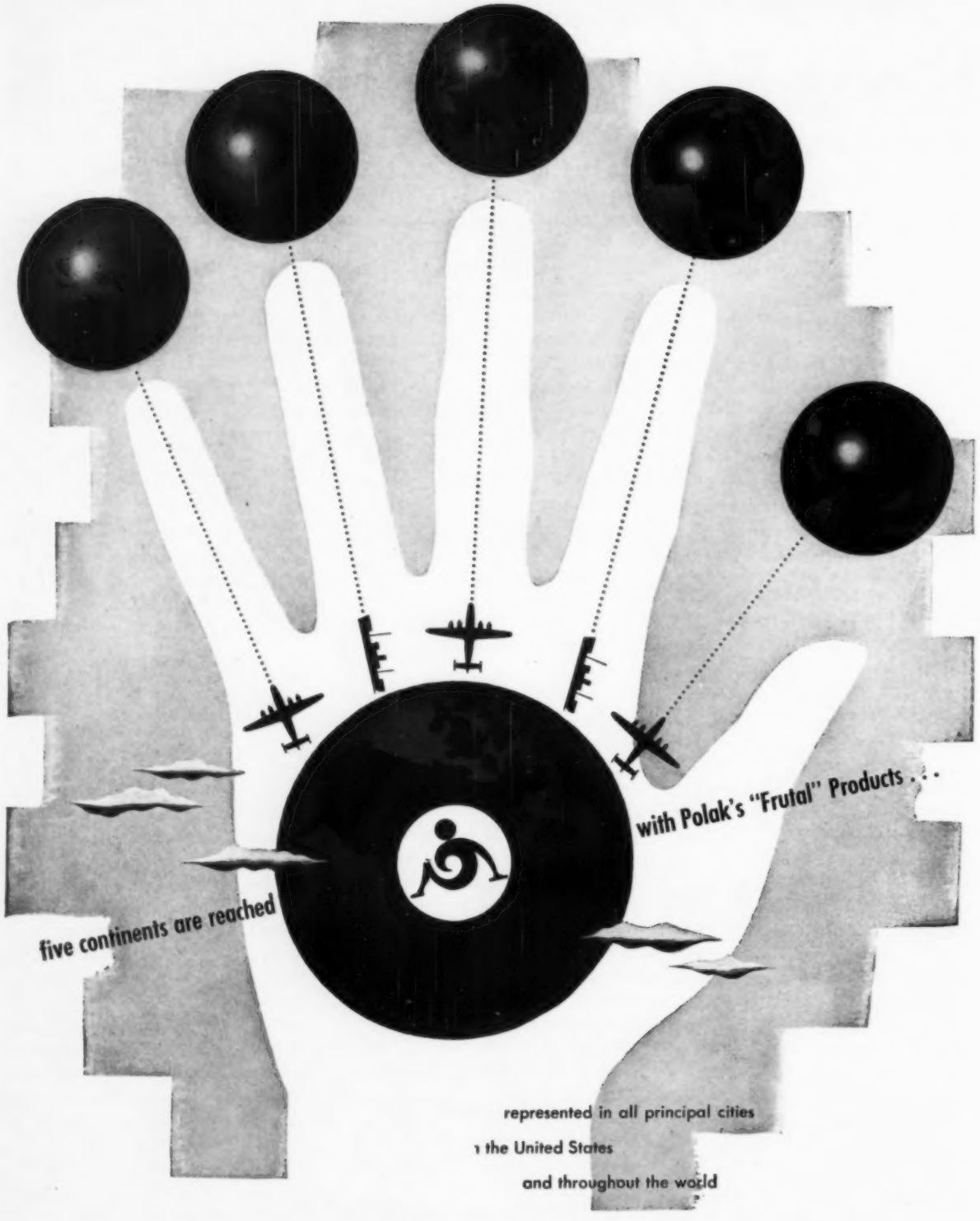
Buyers' Preferences

BUYERS indicated that they liked to do business with those salesmen who:

1. Follow-up the sale and found out whether or not the product worked satisfactorily. (Complaints must be handled satisfactorily to obtain repeat business.)
2. Demonstrate floor cleaners and waxes before trying to close a sale. (In most cases the leaving of sample doesn't mean a thing unless a salesman returns on his next call to find it was used.)
3. Take time to explain how to apply floor cleaners effectively and economically.
4. Call and let buyers know when price increases or product shortages are anticipated.

Thus the floor cleaner and wax salesman who learns how his product should be used, sincerely makes his sales presentation, organizes his time for most effective use, sharpens his selling techniques, and above all provides good customer services will be the one who constantly obtains more business.

Armour Research Foundation of the Illinois Institute of Technology, Chicago, is conducting a research project to develop an improved rodent repellent for baler twine, it was learned recently. A brief report in the Foundation's annual review of its 1951 activities says that as a result of earlier unsuccessful attempts to evaluate rodent repellents critically, a novel approach to the problem is being investigated. This, it is explained, consists of training rats to cut twine rapidly and in the presence of an observer. A cage has been designed and constructed which permits a large number of observations to be made under controlled conditions. Compounds and mixtures incorporated into baler twine are being screened for their repellent effect. The most promising materials will be evaluated with wild animals under field conditions. International Harvester Co. is sponsor of the project.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Gloss of Self-Polishing Wax

By **Andreas Treffler**

THE gloss of self-polishing waxes is the visible result, under the influence of light, of a uniform refractive index of the components of the wax film. Wax micelles, their crystallites, which may have entirely different refractive indices, and impurities in the emulsion disperse the light in all directions and dull the gloss and transparency of the film in varying degrees. Physical and chemical characteristics of the different wax molecules and also the method of emulsification determine the quality of the finished wax.

Waxes used for water emulsion type floor waxes are generally composed of the following: hydrocarbons with straight paraffinic structures, paraffinic branched structures and also cyclic structure; esters of high molecular aliphatic alcohols combined with fatty and wax acids; free fatty acids and wax acids, as saturated and unsaturated monobasic acids, hydroxy and dihydroxy acids, disbasic acids, lactones and aromatic cyclic compounds, such as terpenes, phenols and others.

Wax molecules having melting points of between 75°C. and 90°C. are most desirable in self-polishing waxes. Lower melting points result in soft and smeary films, especially in warmer climates; those of a higher order can cause problems in melting and dispersing during emulsification.

Emulsified unoxidized paraffin waxes and oxidized benzene ring structures do not have good transparency and, in the form of a dried film, the gloss they impart is poor.

The straight and parallel long methylene zig-zag chains of paraffins, having their planes mutually inclined in two directions and being closely packed under the influence of purely residual forces permit only a slight degree of penetration by the light waves. Benzenering structures, such as napthalene and anthrazene, with their long axes all nearly parallel and also with their planes mutually inclined in two different directions, act similarly toward the light. If these molecules are oxidized into acids, alcohols, aldehydes and ketones, or if they are mixed with molecules which contain such groups, then it is possible that these adhesive, more active groups induce a complete new orientation through which light passes. All oxidized organic groups are transparent. Oxidized linseed oil, resin, phenolic and other resins are highly transparent and, therefore, produce a high degree of gloss. The light waves which previously have passed through an atmosphere of O_2, N_2, and CO_2 are in a filtered condition. Obviously they have no difficulty in passing through similar groups in crystalline or micelle structures of a wax emulsion and provide the wax film with the much desired gloss.

Knowledge of the composition of the different waxes therefore is essential for successful emulsification.

Emulsification Explained

IN order to understand emulsification the following explanation may be helpful. The molecules of a wax suitable for emulsification adhere to each other by two forces of attraction: the nonionic, apolar, residual forces existing between the hydrophobic methylene chains of the paraffins and the benezene ring structures of a synthetic resin and the polar, ionic bonds, existing between oxidized radicals, as —COOH and --COH. The residual bonds are weak in comparison with the ionic bonds. The melting point of the wax, which is the result of the strength of the forces of attractions, rises in proportion to the degree of oxidation of the wax molecule. The increase of the melting points is clearly demonstrated in following oxidation ranges:

Decane, $C_{10}H_{22}$, M.P. —31°C.
Decanol, $C_{10}H_{22}O$, M.P. —6°C.
Decoic acid, $C_{10}H_{20}O_2$, M.P. 31.5°C.
Octadecane, $C_{18}H_{38}$, M.P. 28.0
Octadecyl Alcohol, $C_{18}H_{38}O$, M.P. 58.5
Stearic acid, $C_{18}H_{36}O_2$, M.P. 69.4

The weak residual bonds of the paraffin chains disappear almost entirely when the waxes are mixed with fatty acids and heated to 210°F. or higher. The fatty acids make contact with the oxidized groups of the wax molecules, first with the wax acids, secondly with the alcohols, and finally with the paraffins. By saponifying the fatty acids and the wax acids with alkalis and amines and by diluting the mix with boiling water an orientation of the hydrophilic groups in the micelles toward the water takes place. The forces of attraction of the water molecules, practically eliminated by boiling, are fortified again by their adhesion to the ionic groups of the fat and wax soaps, as is evident by the rise of the boiling point of the water. An impulse for breaking up the emulsion thereby is created. The activated molecules of water tend to cluster increasingly around the ionic groups and break up the wax mixture by the formation of crystallites and finally micelles. The paraffin molecules, which settle out easily adhere to an oxidized wax molecule of a similar or higher melting point. They develop a preferential attraction and are secure from the repulsive action of the water. During the drying of a wax film the process is reversed. The water evaporates and the micelles make contact with each other. The ionic groups line up with ionic groups and paraffin groups with paraffin groups. The ionic groups also make contact with the ionic groups of

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A Continental container, of course. Continental is one of the largest makers of aerosol cans—and the *only* maker of container-and-valve and container alone—for fine spray products from insecticides to paints. Continental cans not only are slick as a whistle, but also are lithographed with the cleanest, brightest colors for long-lasting, high-powered sales appeal.

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the substratum, giving the wax film the necessary adhesion.

The stability and the gloss of a wax emulsion is achieved by correct heating and blending, which result in the orientation of the components. Any excess of alkalis or amines, not combined with the fat and wax acids, align themselves with the hydrophilic groups of the micelles and sooner or later may cause the formation of a gel similar to that produced by an excess of alkalis added to a neutral liquid soap solution. Alkalis not aligned with anionic and cationic radicals are subject to more reactions by temperature changes than unoriented amines. The pH of a wax emulsion should not be much over 9, as the wax esters could be split slowly and additional saponification with a gel formation might be the final result.

The affinity of the fatty acid molecules for the wax acids and wax molecules also is essential to the formation of a stable gloss producing wax emulsion. Otherwise a separation into soap molecules and wax molecules will take place in the liquid emulsion or upon drying, and transparency and gloss may be reduced. In order to prove this statement and also to find better ways and means for the production of high gloss producing self-polishing waxes systematic tests and investigations in several wax emulsions, as summarized in Table I, have been conducted.

Waxes investigated include carnauba, candelilla, oxidized microcrystalline wax (Cardis #314) and a 50/50 blend of the Cardiswax with Durez resin (#219). Different acids have been used as emulsifying agents, including stearic and oleic acids, cottonseed oil and soyabean oil fatty acids. These were saponified with amines, such as triethanolamine, diethanolamine, monoethanolamine and morpholine. The emulsions were made up by mixing and heating at 210-220°F. well-proportioned and balanced quantities of three ingredients in this succession: wax, fatty acid and amines. About the same weight of water was added to the mixture, which was reheated for five to 10 minutes at the same temperature until uniformity had been attained. The emulsion was then diluted with boiling water down to 18 per cent solid content, and finally chilled to room temperature. After tests for gloss and waterspotting the products were reheated for one week at a constant temperature of 145°F. as a test for shelf life. The formulations shown in the table gave satisfying results, as long as they are not listed within brackets. Those in two brackets, (—), have no gloss, in one bracket, (—, insufficient gloss, those with an asterisk had gloss. In order to study the individual properties of these waxes, they were first emulsified by themselves and blends were made up later.

Carnauba Wax

THE approximate composition of this wax, as derived from different sources shown in Table II, page 151. The analysis indicates that the main constituents of this wax are esters with long straight zig-zag methylene chains. It is not difficult to conclude that a fatty acid of similar structure makes contact by means of residual bonds. Fatty acids, such as stearic, palmitic, oleic and cottonseed oil fatty acids, furnish good results in these formulations, as listed in the table. The emulsifying agent, 4.5 gms T.E.A. plus

Table I

Figures with brackets, (..), indicate no gloss, with one bracket, (.., a poor gloss, with no brackets a gloss, with asterisk an excellent gloss.

Abbreviations: T.E.A. = Triethanolamine, D.E.A. = Diethanolamine, M.E.A. = Monoethanolamine, MORP. = Morphine.

	25 gms of I. Carnauba Wax				*25 gms of II. Candelilla Wax*				*25 gms of III. Cardis #314*				*25 gms of IV. 50% Cardis #314 50% Durez Resin #219*			
	gms of				*gms of*				*gms of*				*gms of*			
	T.E.A.	*D.E.A.*	*M.E.A.*	*MORP.*	*T.E.A.*	*D.E.A.*	*M.E.A.*	*MORP.*	*T.E.A*	*D.E.A.*	*M.E.A.*	*MORP.*	*T.E.A.*	*D.E.A.*	*M.E.A.*	*MORP.*
5 gms of Stearic acid	4.5	3.0	3.0	(4.5)	(4.5)	(3.0)	(3.0	(3.5	(4.5)	(3.0)	(3.0)	(3.5)	(4.5	(3	(3	(4.5
5 gms of Oleic acid	(4.5)	3.0*	3.0	3.5	(4.5)	(3.0)	(3.0	(3.5	(4.5)	(3)	(3	(3.5)	4.5	3	3*	4.5*
5 gms of Cottonseed oil F.A.	4.5	3 *	3 *	3		(3.0)	(3.5	3.5		(3)	(3)		4.5	3*	3*	(4.5)
5 gms of Soyabean oil F.A.						(3.0)	(3.0	3.5					4.5	3	3*	(3.5)
5 gms of Palmitic acid	4.5	3	3	4.5												
5 gms of Rosin	(6)									(3)						
5 gms of Lauric acid	(6.5)	(4)														
5 gms of Linseed oil F.A.									(4.5)	(3.0)	(3.0					

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In the original conception of the AEROVAP process, the prime objective was to produce an automatically operated device which would vaporize chemicals at a uniform rate, in predetermined minute quantities, for the purpose of continuously dispersing an insect toxicant without any deleterious effect on human beings. The result was the thermostatically regulated AEROVAP instrument — carefully engineered to control chemical vaporization rates within milligram tolerances.

In the AEROVAP Unit there are embodied the best available components to give long life and high quality performance. There is not a single part that could be omitted, or even cheapened, without detracting from this performance or without introducing a health hazard. In short, nothing has been sacrificed in our effort to give the public a safe and efficient insect control system. Specifically incorporated in the AEROVAP Instrument are provisions to permit the user to determine readily for himself that the chemical dispersion rate meets accepted standards. The user is not left to the mercy of false advertising claims. The user is not induced to purchase and operate a vaporizer that is designed with an indifference to, or an ignorance of, how to achieve the basic standards essential to public health as set forth in the Federal Interdepartmental Committee Statement released from Washington, D. C. on September 21, 1951.*

American Aerovap, Inc. has filed several infringement suits in Federal Court against a number of users, distributors and manufacturers of vaporizers that contribute to the infringement of the AEROVAP Lindane Vaporization Process Patent 2,541,637. In the first case to come to trial, the validity of this patent has been upheld. The issue was vigorously contested by the Defendants and in the course of the trial in open court, considerable testimony was rendered by qualified experts on both sides. In the judicial opinion, the Federal judge commented that "The plaintiff's invention is a commercial success — the plaintiff expended a large sum in laboratory research and in the perfection of what it is offering in its patent". The Court restrained the users, distributors and the manufacturer of the vaporizer from infringing on the AEROVAP Process Patent which was held to be "Good and valid in law and in equity".

The automatic and continuous control of insects by our patented process is receiving nationwide attention from both distribution and use standpoints. If you have been considering the distribution of an automatic and continuous fly control vaporizer, it will be of interest to you to know that several vaporizers currently being marketed and purporting to operate in accordance with the teachings of our patent, have been tested by us and found to be utterly lacking in the requirements essential to safety.

If you are interested in distributing the original and genuine vaporizing instrument, we will be glad to furnish appropriate details together with the names and addresses of active AEROVAP Distributors near you. We believe that their experience with our company and product will be helpful to you in arriving at a final decision.

* WE WILL MAIL YOU A COPY ON REQUEST

THE AEROVAP SYSTEM WAS DEVELOPED THROUGH THE EFFORTS OF THE RESEARCH SCIENTIST. IT IS BACKED BY THE MOST THOROUGH AND EXTENSIVE SCIENTIFIC RESEARCH PROGRAM OF ITS KIND.

SSC
4-52

AMERICAN AEROVAP INC.
170 W. 74th St. New York 23, N. Y.
MEMBER: AMERICAN PUBLIC HEALTH ASSOCIATION

Table II

Carnauba Composition*

Alkyl Esters of Wax Acids: 80-81%
- myricyl carnaubate, m. 78°, m.wt. 789.40
- myricyl cerotate, m. 87°, m.wt. 817.46 (75%)
- ceryl cerotate, m.84° (1%)
- ceryl octacosanate, m.86 (1%)
- ceryl w-hydroxyuncosanate, m. 84° (?)

Free Wax Acids: 1-1½%
- montanic acid, $C_{29}H_{58}O_2$, m.83° (C_{28}, C_{30})
- melissic acid, $C_{31}H_{62}O_2$, m.90° (C_{30}, C_{32})
- lacceric acid, $C_{32}H_{64}O_2$

Lactones: 3 to 5%
- (dimeric) w-1-lactone of medullic acid, m.103.5°

Free Monohydric Alcohols: 9 to 10%
- carboceryl alcohol, $C_{27}H_{55}OH$, m.80-82.5° (C_{26},C_{28})
- octacosyl alcohol, $C_{28}H_{57}OH$, m. 83.2°
- myricyl alcohol $C_{30}H_{61}OH$, m. 86.4°-86.8°
- lacceryl alcohol, $C_{32}H_{65}OH$, m. 89.4° (6%)

Free Polyhydric Alcohols: 1 to 2%
- dihydric pentacosanol, $C_{25}H_{46}(CH_2OH)_2$, m. 103.6°
- oxy-alcohol dervived from the unsaturated alcohol (Carnaubanyl alcohol, m. 39°),

Hydrocarbons: less than 1% heptacosane, m. 59.2°

Resins: 3 to 4%

*"The Chemistry and Technology of Waxes (Page 104), by Albin H. Warth. Pub. by Reinhold Publishing Corp., 330 W. 42nd St., N. Y. C.

five gms oleic acid produce only a turbid, unstable emulsion which gives no gloss. But by substituting the oleic with the same amount of stearic acid, or by increasing the 4.5 gms T.E.A. to 5.5 gms a better emulsion which dries to a glossy film is obtained. The stearic acid, with the straight methylene zig zag chain, offers a longer magnetic field for contact with the wax molecules than does oleic acid, which is bent on the unsaturated group. Palmitic acid, a smaller molecule, still gives good results, but lauric acid does not have sufficient adhesion to wax molecules.

Rosin is structurally too different to show any signs of contact. A complete separation into rosin soap and wax layer takes place within a very short time. Stearic acid used with T.E.A. or D.E.A., as emulsifying agent for this wax furnishes a film with a somewhat scaly, frosty appearance. The carnauba wax used in the formulas was of commercial grade and whenever a highly refined and bleached grade was used, a gloss 10 to 20 per cent higher could be obtained. Carnauba wax used by itself is too expensive and slippery and it is advisable to blend it with other waxes, more highly oxidized and especially with a resin, such as those produced by Durez. These resins improve gloss considerably.

T.E.A. emulsions in all listed formulas gave only slightly transparent, milky appearing products, which were excellent in spread and levelling.

D.E.A. emulsions appear less milky. They are more transparent, show more of the original wax color and are satisfactory as far as spreading and levelling, although not as good in this respect as T.E.A. emulsions.

M.E.A. emulsions are completely transparent, retain the original wax color and dry streakily.

The difference in spreading qualities is related to a structure of the three amines. T.E.A., $N(CH_2CH_2OH)_3$ has three —OH bonds to make contact with polar groups found in wood, paper, glass, and other material. M.E.A., $NH_2.CH_2.CH_2OH$, has only one —OH bond and upon drying, can easily lose its attachment to polar groups of the substratum and yield to the adhesive pull of the residual forces in the wax molecules, causing streaks. Because of this characteristic behavior of the three amines, it is advisable to use combinations of T.E.A. and morpholine or of T.E.A. and M.E.A.

Candelilla Wax

ANOTHER vegetable wax, also derived from various sources has about composition shown in table III. This wax is very seldom found in an emulsion by itself and is used mostly as a component in wax blends for two reasons: the melting point of the wax is too low, and the amount of hydrocarbons causes difficulties in emulsification. Stearic, oleic, cottonseed oil fatty acids, as well as others in the proportions listed are powerless to make lasting attachments. The resin acids in the wax are structurally too different and the dihydroxymyricinoleic acid insufficient proportionally to carry such a large amount of esters and hydrocarbons in combination with the emulsifying agent.

Table III

Candelilla Composition*

Esters with ?Hydroxylated Acids: 33-35%
- sitosterol, $C_{29}H_{49}(OH)$ combined with dihydroxymyricinoleic acid, $C_{30}H_{60}O_4$, ester value 195, m.88-90° (Berg) 20% myricyl dihydroxymyricinoleate

Lactone: 5-6%
- hydroxy myricino lactone, m. 88° (M.&S.) (from dihydroxymyricinoleic acid)

Free Acids: 9-10%
- cyclic: resin acids
- aliphatic: dihydroxymyricinoleic acid, m.69°? (4.2%)

Hydrocarbons: 50-53%
- hentriacontane, m.68° (40%)
- tritriacontane, $C_{33}H_{68}$, m.71-72°

Moisture and Volatile Matter: 1%

*A. H. Warth, Pg. No. 117.

The D.E.A. wax emulsions of the oleic acid, cottonseed oil and soyabean oil fatty acids are not stable in the shelf life test at 145° F. and separate into soap solution and wax layer. No gloss can be expected from poorly coupled emulsions. This insufficiency can be corrected by de-esterizing the wax by saponifying it with caustic potash and following splitting with acids. The D.E.A. oleate emulsion of this de-esterized wax furnishes a highly transparent, stable and gloss giving product. The liberated hydroxylated acids and alcohols of the ester line up with the soap and furnish the necessary bonding base for the hydrocarbons. The saponification process and the treatment with acids also has a purifying effect, which is partly responsible for whatever improvement takes place.

Microcrystalline Wax

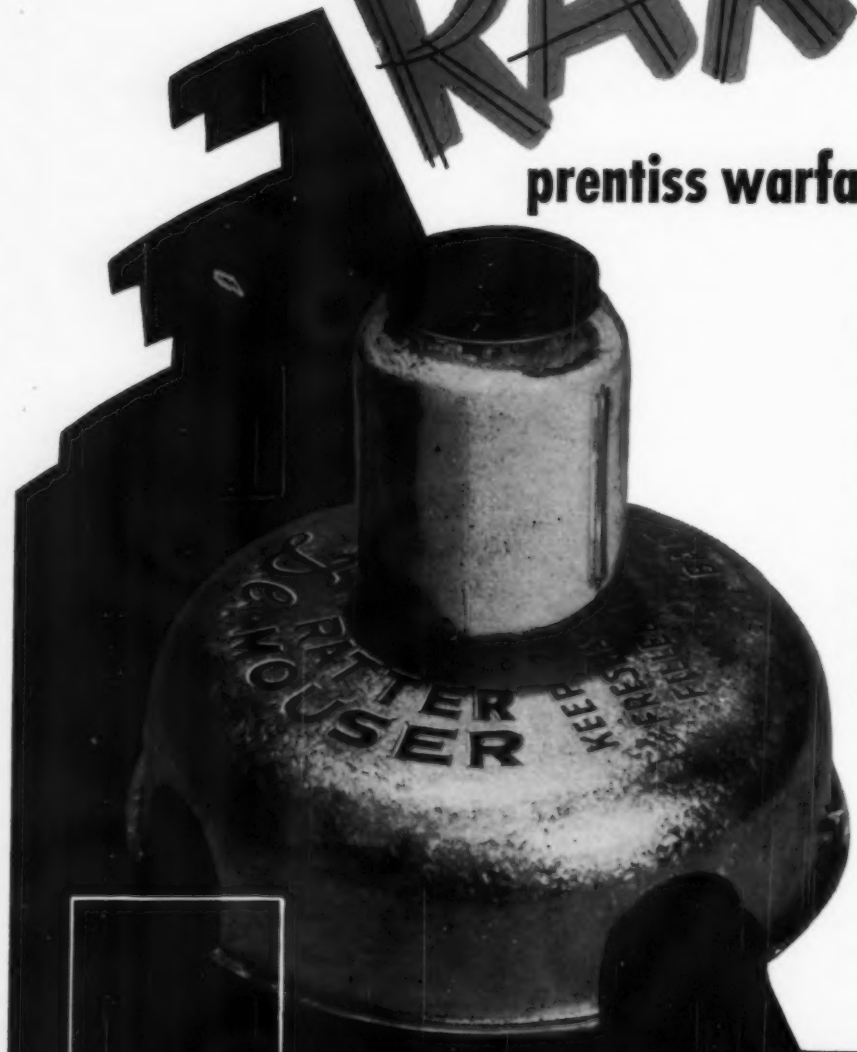
ANOTHER WAX which causes difficulties when efforts are made to formulate it into a gloss giving emulsion is the oxidized microcrystalline wax.

Microcrystalline wax in the unoxidized state is separated like paraffin wax from crude petroleum. Extensive X-ray diffraction work has indicated differences in the chemical structure of paraffins and microcrystalline molecules. Paraffins have been found to consist mainly of straight chain molecules with little branching.

(*Turn to Page 169*)

RAX

prentiss warfarin concentrate



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Phenol Coefficients of Five Quaternaries

By Lora Mangum Shields, Warren Powell and Max Valdez

PHENOL coefficients against *Selmonella typhosa* (Zopf) White and *Serratia marcescens* Bizio were determined for two quaternary ammonium compounds and three commercially prepared mixtures of ammonium salts:

(1) trimethyldodecylammonium chloride,
(2) trimethylhexadecylammonium chloride,
(3) bis(2-hydroxyethyl)2,3-dihydoxypropylsoyammonium chloride,
(4) bis(2-hydroxyethyl)methylsoyammonium chloride, and
(5) trimethylsoyammonium chloride.[1]

The syllable "soy" in the names of quaternary ammonium salts (3), (4) and (5) indicates the soybean origin of the fatty acids used in the preparation of these mixtures.

Stock solutions of 1:50 and 1:100 were prepared from each quaternary ammonium salt. Stock solutions of chemically pure phenol, the standard for comparison, were made in dilutions of 1:80, 1:90, 1:100, 1:110, 1:125, 1:35, and 1:145. Nutrient broth cultures of the test organisms were incubated at 37°C. for twenty-four hours before each series of transfers.

The procedure followed in determining the phenol coefficients was that recommended by the United States Food and Drug Administration Circular No. 198 (1931). The phenol coefficients were obtained by dividing the denominator of the fraction expressing the greatest dilution of each quaternary ammonium salt capable of killing all the test organisms in 10 minutes but not in five minutes by the greatest dilution of phenol showing the same results.

During each series of tests a gram stain and a transfer to bismuth sulfite agar were made of *Salmonella typhosa* to check the purity of the culture. *Serratia marcescens* was identified by its characteristic red growth on the agar surface.

Table 1 indicates the phenol coefficients of the five disinfectants against the two test organisms.

Salmonella typhosa is more susceptible than *Serratia marcescens* to the action of the first three quaternary ammonium salts, but less susceptible to numbers (4) and (5). This variation in relative resistance of organisms in the presence of different disinfectants is a well known characteristic of the several species of bacteria most commonly employed in determining phenol coefficients.

[1] These quaternary ammonium salts were obtained through the courtesy of the manufacturer, Armour and Company, Chicago.

Literature Cited

Ruehle, G. L. A. and C. M. Brewer. 1931. United States food and drug administration methods of testing antiseptics and disinfectants. U.S.D.A. Circular No. 198.

—— ♦ ——

John C. Gamba joined the sales staff of Caldwell Chemical Co., industrial chemicals, New York, it was announced recently by John B. Caldwell, president. Mr. Gamba has been assigned the New Jersey territory.

Phenol coefficients obtained by dividing the denominator of the fraction expressing the greatest dilution of each quaternary ammonium salt capable of killing all the test organisms in 10 minutes but not in 5 minutes by the greatest dilution of phenol showing the same results. The effective concentration of phenol was 1:100 against *Salmonella typhosa* (Zopf) White and 1:110 against *Serratia marcescens* Bizio.

TABLE I

Quaternary ammonium salt	*Phenol coefficient against*	
	Salmonella typhosa	*Serratia marcescens*
1. trimethyldodecylammonium chloride	$\frac{8666}{100} = 86.6$	$\frac{5210}{110} = 47.3$
2. trimethylhexadecylammonium chloride	$\frac{39000}{100} = 390$	$\frac{37500}{110} = 340.9$
3. bis(2-hydroxyethyl)2,3-dihydroxypropyl"soy"ammonium chloride	$\frac{8666}{100} = 86.6$	$\frac{6250}{100} = 56.8$
4. bis(2-hydroxyethyl)methyl"soy"-ammonium chloride	$\frac{13000}{100} = 130$	$\frac{18750}{110} = 170.5$
5. trimethyl"soy"ammonium chloride	$\frac{13000}{100} = 130$	$\frac{18750}{110} = 170.5$

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Technical BRIEFS

Fungicidal Waxes

Bofors Nobelkrut, a Swedish concern, produces ethyl paranitrobenzoate, an oil-soluble fungicide, which can be incorporated in shoe waxes and greases to prevent mildew. It is reportedly being used by the Swedish army. *La Revue des Produits Chimiques*, Paris, January 31, 1952.

Permanent Moth Proofing

Woolen textiles are made permanently resistant to attack by insects by impregnating the cloth with a finely divided water-soluble insecticide, and then with a water solution of an alkylated methylol melamine resin, subsequently heating to cure the resin to a water-insoluble condition. In this way, the insecticide is retained in the fabric in a laundry-resistant condition.

The insecticide may be dissolved in an organic solvent and padded or sprayed onto the materials; the solvent then being removed by evaporation. The alkylated methylol melamine may be employed in quantities of two to 15 per cent of the dry weight of the textile material and the insecticide may be used in amounts of .015 to 10 per cent. Acetone is suggested as the solvent, while recommended insecticides include DDT, calcium fluoride or calcium silicofluoride. British Patent 612,154.

Test for Quaternaries

Oregon Agricultural Experiment Station, Corvallis, Ore., recently reported the development of a simple, effective method for determining the presence of quaternary ammonium compounds in milk and detergent-sanitizer solutions. As described briefly in the station's latest annual report, a dye and solvent compound is used that reacts with and extracts the quaternary in the milk. If at least five parts per million quaternary are present in the milk sample, the solvent takes on a pink or reddish color. If no quaternary is present, the solvent is white or colorless. Up to this point, says the report, the method may be employed as a presumptive test for detecting quaternaries in milk samples and provides a simple, rapid method for this purpose. Dairymen and public health inspectors, it is stated, have already recognized the procedure as a valuable tool for their work, and the report adds that if a more accurate determination of quaternary content is desired, the method can be extended to provide an accurate titration of the quantity present.

Dairy Sanitizer Report

A search conducted by the department of dairy husbandry at the Massachusetts Agricultural Experiment Station, Amherst, Mass., to find new and better chemical sanitizing agents for dairy use has resulted in the conclusion that alkyl morpholinium alkyl sulfate may be used as a sanitizing agent. Preliminary tests, conducted by Dr. W. S. Mueller, indicated, according to the station's latest annual report, that the compound is stable chemically and has good germicidal properties. In addition, Dr. Mueller reports, "this compound has greater detergency power and also greater deodorant properties than the quaternary ammonium compounds now commonly used as sanitizing agents on dairy farms and in dairy plants."

Dr. Mueller also announced that he is investigating detergent-sanitizers, which combine cleaning and initial sanitizing in one operation. The objective, he explained, is to determine the effectiveness of the two-in-one operation and he states that "while detergent-sanitizer combinations have not been perfected, they do appear promising enough to receive further attention."

Another project on which he is working, Dr. Mueller revealed, involves a study of quaternary ammonium compounds to determine why a few bacteria survive the effects of the germicide under a given set of conditions. Under consideration is the possibility that the quaternaries cause the organisms to clump or agglomerate, thus protecting the organisms in the center of the clump from the germicide. So far, he said, results indicate that clumping is not a major cause for survival of a few organisms.

DDT Resistant Lice

Field and laboratory experiments on the effect of DDT on *Pediculus humanus corporis* infesting military personnel in Korea suggest that DDT-resistant strains of lice have become established. In the past, dependence has been placed on DDT for typhus controls but DDT now appears to be of uncertain value and even unsuitable for typhus control in certain localities. Herbert S. Hurlbut, Robert M. Altman, and Carlyle Nibley, Jr. in *Science* 115, 11-12 (1952).

Emulsified Pesticide

A mixture of ortho- and paradichlorobenzene and a small amount of fatty acid, acid clay, alkali are emulsified. Ken-ichi Yamamoto, et al. Japan 173,468, August 17, 1946, through *Chem. Abstracts*, vol. 46, p. 2231.

Warfarin Film Strip

A film strip entitled "Win the War Against Rats and Mice with Warfarin" was prepared recently and is now being distributed by Wisconsin Alumni Research Foundation, Madison, Wis. Copies of the film strip are being given to all 4-H Clubs and chapters of Future Farmers of America enrolled in the Foundation's achievement award campaign. The film is a supplement to the Foundation's rat and mouse control manual previously supplied to dealers. Additional copies of the strip are available.

Folder on Black Flies

The Bureau of Entomology and Plant Quarantine of the U. S. Department of Agriculture recently issued a folder on control of black flies with DDT and TDE. It supplies data on recommended concentrations, and on modes of application. The folder points out that the most efficient means of control is to attack the larvae. It includes a paragraph on control of adults, and one on use of repellents.

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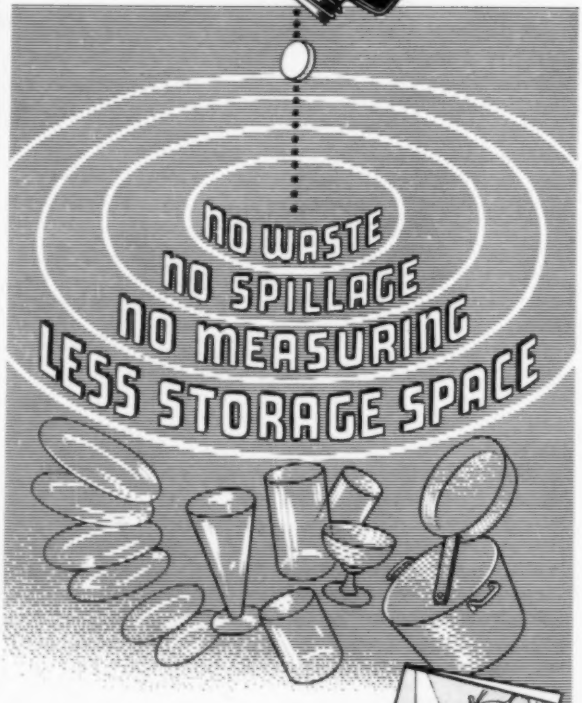

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NSSA Meets

(*From Page* 143)

"Tornado" line of floor maintenance equipment. A. M. Anderson, sales manager.

Clark Sanding Machine Co., Muskegon, Mich., made first showing of a new 11-inch floor scrubbing, waxing and polishing machine. Hal Croskey, sales manager.

Doyle Vacuum Cleaner Co., Grand Rapids, Mich., showed two models of its standard line of industrial vacuum cleaners. Dewey I. Doyle, Sr., president.

Finnell System, Inc., Elkhart, Inc., displayed standard line of floor machines, and in its maintenance chemical line had two new items· No. 41, "Floorall" concentrated all purpose liquid cleaner, and No. 51, a slip-resistant self-polishing floor wax. W. S. Finnell, president.

General Floorcraft, Inc., New York, made first showing of a new 11-inch floor polishing and scrubbing machine, designed to fill the gap between heavy industrial and household types. J. M. Sassano, vice president.

Hild Floor Machine Co., Chicago, had a new 53-gallon area pickup floor machine, also an 11-gallon wet-dry vacuum pickup cleaner. Fred C. Hild, proprietor.

Holt Mfg. Co., Oakland, Calif., introduced its "Aristocrat" lightweight floor polishing machine, along with various of its 50 different models of floor maintenance equipment for industrial, commercial and household use. L. W. Morris, sales manager.

S. C. Johnson & Son., Inc., Racine, Wis., showed floor maintenance specialties, also a new wet-dry vacuum machine for floor, carpet, furnace and overhead cleaning. J. W. Barrett, Jr., merchandising manager, maintenance products dept.

The Kent Co., Rome, N. Y., made first showing of its "Quiet" vacuum cleaner with a new by-pass motor feature; also a new 11-inch floor scrubbing and polishing machine with rigid or non-rigid handle, non-marking bumper guard and other new features. C. E. Clifford, sales manager.

S. C. Lawlor Co., Chicago, displayed and demonstrated its standard line of floor maintenance equipment for all purposes. Arthur P. Boller, president.

Lincoln-Schlueter Floor Machine Co., Chicago, had a new "No. 500" automatic, silent scrubbing machine using liquid or powdered soap, for scrubbing and water pickup. Also made first showing of single disc machines with cast gear motor housing. R. T. Stelmore, sales manager.

Multi-Clean Products, Inc., St. Paul, Minn., made first showing of four items: a "V.B. 100" industrial vacuum machine; new 15-inch vacuum attachment; a vacuum attachment with special improved features; and an industrial furnace cleaning vacuum attachment for the company's or any make of vacuum machines. E. C. Hesli, sales manager.

National Super Service Co., Inc., Toledo. Announcement made by W. S. O'Connor, manager of distribution, that one wet pickup cleaner in company's line has been approved for listing by Underwriters Labs.

Ponsell Floor Machine Co., New York, featured its "Ponsell" noiseless vacuum cleaner in six sizes; noiseless floor scrubbers and polishers in six sizes and two rug scrubbing machines. R. A. Ponsell, president.

Rex Cleanwall Corp., Brazil, Ind., had a new "Pluto" self-cleaning wet or dry vacuum sweeper; and also made first showing of "Keen's Cyclone" blower device for blowing water, dirt, metal particles, etc., from factory machines, electric switch boxes, etc. James H. Longshore, president.

United Floor Machine Co., Chicago, had a new portable vacuum cleaner for wet or dry pickup. John A. Backlund, president.

Brooms and Brushes

Brooklyn Fibre Broom Co., Brooklyn, N. Y., displayed fibre brooms and brushes for general use, also special use types. Matthew J. Kubick, Arthur Hertel.

Empire Brushes, Inc., Port Chester, N. Y., introduced a new plastic pot brush, with fibres of nylon and "Saran" and a hard rubber handle; also a "Superchief" plastic utility brush. Jack Gantz president; Emanuel Gantz, vice president and general manager.

Flour City Brush Co., Minneapolis, featured "Titan" nylon utility brushes and "Flo-Pac" yarn mops. Wesley H. La Clair, sales manager.

Illinois Duster & Brush Co., Chicago, showed a number of new brush items and wool dusters and distributed to visitors a new 32-page catalog in color listing its full line. John F. Hohenadel, Jr., vice president.

Laitner Brush Co., Detroit, Mich., made first showing of "Ezee" car wash brushes and presented a new merchandiisng idea, which places an "informative tag" on every brush sold, telling type of floor surface and kind of dirt each brush is best adapted to handle. E. Carter Laitner, sales manager.

Moran Brush Mfg. Co., Hamden, Conn., showed new line of plastic bristle brushes in six categories; also new non-breakable brush handles; glass tank brushes; car and bus fountain brushes. Miss Lillian Moran, vice president and general manager.

National Brush Co., Aurora, Ill., made first showing of "Kwik-Kleen" pan cleaner brush; a new "lint chaser" brush for fabric cleaning; and a new scrub brush with pastel-colored, crimped plastic bristles. Arthur A. Homan, Chicago sales representative.

Ox Fibre Brush Co., Frederick, Md., displayed its line of maintenance brushes for all purposes. Doyle W. Carr, sales manager.

Ransom Brush Co., Chicago, displayed floor and window brushes. Arthur A. Homan, Chicago sales representative.

Silver Brush Works, Inc., Chicago, made first showing of a new "Tavern" twin glass washer. I. Silverstein, president.

Zimmerman Brush Works, Inc., Chicago, made first showing of a rotating brush for floor machines. New "steel grip" bench brushes and other specialty brushes. M. A. Zimmerman, president.

Mops

American Standard Mfg. Co., Chicago announced resumption of production of its "Dura-Sorb" wet mop head, which had been off the market for some time. Charles E. Krebs, president.

American Textile Products Co., Chicago, showed various new models in its line of wet mops, swabs and wax applicators. H. J. Lehman, president.

Arcade Industries, Inc., Chicago, showed "Arcade" mop sticks, G. Peter Neville.

Du-Fold Mfg. Co., Cleveland, O., displayed mop and wax applicators with cellulose sponge of largest size made. Jay R. Berndsen, representative.

Golden Star Polish Mfg. Co., Inc., Kansas City, Mo., displayed floor dust mops, hand dusters, car wash mitts, wax applicators, floor and metal polishes, etc., Lee Gradinger, representative.

W. E. Kautenberg Co., Freeport, Ill., introduced a new "Wekco" heavy duty sponge mop and announced availability of a new industrial size mop about May 1. A. W. Sauer, secretary and sales manager.

Fred Mello, Shreveport, La., new "Lay-flat" janitor mop shown. M. R. Tatum representative.

W. M. Pettette Co., Tulsa, Okla., wet and dry mops. W. M. Pettette, president.

Piedmont Mop Co., Charlotte, N. C., offered one item in its varied line of cotton mop heads in a 12-ounce size in a newly designed box with cellophane window. J. Boyce Choate, president.

Rubon Products Co., Kansas City, Mo., featured a new re-usable "Pliofilm" bag in which it now packages one of its dust mops. Robert H. Johnson, sales manager.

Smyth Mfg. Co., Newark, O., showed mops, mitts, brushes from nine to 54 inches wide, and explained its custom manufacturing service. E. D. Smyth, president.

Tu-Way Products Co., Detroit, Mich., had a new adjustable mop head holder, suitable for use with dust mops or cotton applicator. C. Weller, sales representative.

Zelinkoff Co., Wichita, Kans., had a new "Bar Maid" mop with du Pont cellulose sponge yarn; new long cotton yarn mop specially adapted for use with new liquid floor sweeping compounds; and a new interchangeable dust mop frame with rigid or swivel features. Milton A. Zelinkoff, proprietor.

Metal Products

Atlantic Stamping Co., Rochester, N. Y. Janitor metal ware, mopping equipment, etc. M. L. Dowling.

Atlas Products Co., Chicago, had five new models of metal waste receptables, all newly designed both structurally and artistically; also new steel grill shoe scraper. Sam Brody and Jos. P. Dumitt, partners.

Compco Corp., Chicago, showed a new "Grecian" and a new "Moderne" sand urn, both of hand spun aluminum. S. J. Zegel, general sales manager.

Creative Metal Products, Chicago, made first showing of four new products: a corner waste paper receptable; a self-cleaning sand urn; multiple towel cabinet with mirror, and wall type sanitary napkin receptable. Arthur Kagan, general manager.

Economy Mop Wringer Co., Chicago, displayed mop wringers with rigid, electrically welded frames. Arthur Slutzky, proprietor.

Ex-Cell Products, Chicago, made first showing of a new "Safe Guard," underwriters approved, safety waste can. Morton L. Goldberg, proprietor.

Franklin Metal Products Co., Chicago, made first showing of a new self-cleaning sand urn and a new "400" waste basket. Leon H. Franklin, proprietor.

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SCENT-FLO NEUTRALIZES AND DESTROYS ODORS THE POSITIVE WAY . . . provides "Just a Breeze of Pleasantness." It is precision-made and scientifically developed — the only adjustable unit of its type in the country. Made of lifetime aluminum in gorgeous, permanently anodized metallic colors: Red, Gold, Silver, Green. Unlimited use — handsome enough for any office, showroom, factory or home. The Scent-Flo fan-operated electric scent-conditioner maintains complete control over the uniformity and quality of air freshness — can be easily installed in a matter of minutes. No other method of deodorizing guarantees such continuously effective results at such little cost to its users. Scent-Flo refill lasts an entire month. For those already in the deodorizing field — we can offer the finest refills, either disc or liquid, available today.

Strikingly New and Different — the SCENT-FLO AIR FRESHENER is a proved best seller that's sure to be a standout. Guaranteed to give complete satisfaction — build new sales and also repeat business in refills. Prices are right for the customer — profits are right for the dealer. Can be easily handled on a rental or sale basis. Every customer you presently serve is a potential user of Scent-Flo.

ONLY SCENT-FLO CAN BE ADJUSTED TO MEET ALL AREA REQUIREMENTS

DEALER: If your business needs a sure-fire item, WRITE NOW for details.

Scent-Flo **DISTRIBUTING COMPANY**
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Petrolite

MICROCRYSTALLINE WAXES

Petrolite Waxes derive their superiority from the application of rigidly controlled refining techniques to carefully selected raw materials. The entire Petrolite refining operation is designed to produce high quality waxes as end products, rather than by-products. The resulting finished waxes feature purity, uniformity, high melting point, low penetration and light coloration unsurpassed in the field of microcrystalline waxes. The many unique qualities of Petrolite *Crown* Waxes make them especially suitable for polish manufacture, as well as a wide variety of other applications.

Warehouse stocks of Petrolite Wax are carried in Jersey City, New Jersey; Chicago, Illinois; and Los Angeles, California.

Complete technical information and samples are yours for the asking — write or call . . .

NOTE THE WIDE RANGE OF **SPECIFICATIONS**

Crown Wax	Melting Point °F	Pen. with 100 grams	Color N.P.A.	Acid Number	Sap. Number
200	190/195	10 max.	Brown-Black	Nil	Nil
500	190/195	10 max.	2 to 2½	Nil	Nil
700	190/195	5 max.	2 to 2½	Nil	Nil
1035	195/200	2 max.	2 to 2½	Nil	Nil
* 23	180 min.	4 to 6	4 to 5	20-25	55-65
* 36	180 min.	5 to 7	5 to 6	30-35	75-85

* Emulsifiable waxes — especially suited to formulations for emulsion polishes.

PETROLITE CORPORATION, LTD.
WAX DIVISION
30 BROAD STREET, NEW YORK 4, N.Y. REFINERY: BOX 390, KILGORE, TEXAS

Geerpress Wringer, Inc., mops, wringers, tanks, sticks. Elmer Bard, president.

H. D. Hudson Mfg. Co., Chicago, had a new "Hudson Favorite" sprayer, with adjustable nozzle, safety lock and other improved features for home and industrial use. H. A. Yoder, sales manager.

F. H. Lawson Co., Cincinnati, O., introduced a new "Lawson Highboy" waste receptacle; a new, self-opening waste receptacle, and a 65-gallon refuse can. E. G. Harvey, divisional representative.

Market Forge Co., Everett, Mass., showed mop wringers and wringer equipment including a universal "Poly-Dolly" wheeled handling device. S. B. Sheldon.

Mipro Metal Products, San Francisco, Calif., first showing of new towel cabinet, of 22 gauge steel, bonderized for rust prevention. Herbert J. L. Baum, vice president.

Rochester Can Co., Rochester, N. Y., made first showing of new rubbish burner, also a new heavy duty garbage-ash can. S. B. Dworkin, sales manager.

Shore Metal Products Co., Los Angeles, Calif., displayed new line of heavy duty dust pans, embossed with jobber's name, also similarly embossed towel and tissue cabinets. Philip Shore, president, announced that he has obtained the sole distributorship on West Coast for all of U. S. Steel Products Co.'s galvanized ware for the sanitary supply trade.

United Metal Box Co., Brooklyn, N. Y., displayed a new self-closing utility receptacle can. M. W. Greenberg, sales representative.

White Mop Wringer Co., Fultonville, N. Y., showed three new items; a new mop outfit with wringer, pail and truck on casters; a new lobby pan, and new rubber-guarded, noiseless hospital pail. R. L. Cooley, vice president.

Floor Mats

D. W. Moor Co., Toledo, had a new "American Beauty" rubber floor runner in stock rolls, to be cut as ordered. D. W. Moor, president.

Perfo Mat & Rubber Co., Inc., New York, presented new floor mat with hardwood slats, not links, on "Neoprene" rubber strips for quieter, softer walking. M. W. Cook, president.

Superior Rubber Mfg. Co., Chicago, showed new grease and acid-proof floor mats for hotel and restaurant kitchens. Standard widths and customer sizes. C. J. Wood, president.

U. S. Cocoa Mat Corp., Madison, O., displayed cocoa brush mats. Thos. C. Akehurst, president.

Wear Proof Mat Co., Chicago, made first showing of a new white utility floor runner said to be proof against effects of grease, oil, acid and alcohol. C. J. Peterson, president; Herbert Soellner, sales manager.

Paper Products

A. P. W. Paper Co., Albany, N. Y., showed complete line of sanitary towel and tissue products; new single-fold, paper towels for dispenser use. Resale items, etc. J. Rauch, sales representative.

Atlas Mills, Inc., Medford, Mass., displayed toilet paper holders. W. James Reider, president.

Herz Mfg. Corp., New York featured "Sunshine" waxed and unwaxed paper cups and "Hygeia" cups. S. S. Keller, territorial sales manager.

Hospital Specialty Co., Cleveland, O., sanitary napkins and dispensers. Irving Kane, president.

Paper Container Mfg. Co., Chicago, had a new flat-bottomed cold drink cup in three sizes along with its primary general water cup line. E. F. Stevenson, assistant sales manager.

Protecto Products Co., Pomona, Calif., displayed paper toilet seat covers and dispensers. Emmett S. Mosley, sales manager, Louis Clark.

Dispensers

American Dispenser Co., New York, made first showing of a new valve (liquid type) for gravity feed systems. Burton L. Feinson, general manager.

Bobrick Mfg. Corp., New York, made first showing of two chrome plated soap dispensers for liquid or lather soap; alone with 24 models from complete line. James E. Pollak, vice president and sales manager.

Dash Metal Products Co., Brooklyn, N. Y., showed new model single fold paper towel dispenser and announced availability shortly of a new louvre-type deodorant dispenser. Louis Scheinberg, sales manager.

Moore Bros. Co., New York, made first showing of a new liquid or lather soap dispenser with satin chrome finish steel tank of 40-oz. capacity. Display included models from company's line of 25 soap dispensers. Martin J. Peters, John Kane.

Palmer Fixture Co., Waukesha, Wis., displayed soap dispensers with improved valve action; toilet paper and towel fixtures, dust pans, etc., Stanley F. Walker, president; Edw. W. Timm, general manager.

Sponges and Chamois

American Sponge & Chamois Co., New York, had a new "Duet" cleaning mitt along with its line of Mediterranean sponges and cellulose sponges. Paul Mansell, vice president.

S. M. Arnold, Inc., St. Louis, Mo., new mitt for car wash or duster. J. P. Saffer, vice president.

Dueding Bros. Co., Philadelphia, chamois skins, Chas. P. Barth.

E. I. du Pont de Nemours & Co., Inc., Wilmington, Del., demonstrated its long-wearing cellulose sponge yarn in rope form, for mops and other uses, also lintless cellulose sponges for varied cleaning purposes; sponge yarn dish mops; car wash mitts, and other items utilizing the company's cellulose material. J. H. Houser.

Kleenette Mfg. Co., Chicago, had a new medium size sponge added to industrial line of metal scouring sponges. K. W. Zimmer, president.

Kurly Kate Corp., Chicago, displayed metal sponges for cooking utensil cleaning. Herbert F. Tiffen, sales manager.

Schroeder & Tremayne, Inc., St. Louis, Mo., featured new line of imported French cellulose sponges with its familiar natural sponges from Florida and Cuba, and its chamois cloths. Jack Schroeder, vice president.

United Sponge Co., Chicago, showed full line of imported sponges and chamois cloths. Jos. H. Schwartz, president.

Miscellaneous

Beckley-Cardy Co., Chicago, improved electric eraser cleaner. R. H. Howard.

Greenview Mfg. Co., Chicago, new "pole connector" to connect extended sections of window squeegee poles. Herman Siemund, president.

Warren Haviland Corp, St. Louis, Mo., new all-aluminum spark proof squeegee; a "Neoprene" sponge rubber floor squeegee, which responds to depressions in uneven floors; and an "economy" line of light weight floor squeegees. Warren Haviland, president; Jos. Loeber, general manager.

Modern Mfg. Co., Pasadena, Calif., industrial power sweeper. Fred J. Machovec.

Keystone Scent Conditioner Corp., Philadelphia, Pa., new electric deodorizer, M. C. Goldberg, president.

W. J. McElmoyl Co., Groveville, N. J. New janitor service wagon with canvas waste receptacle, treated for flame resistance; also shown, a pilot model of forthcoming lightweight maid and cleaner's truck for motels, etc. W. J. McElmoyl, proprietor.

Parlee Co., Inc., Indianapolis, Ind., featured new wiping cloth chemically treated for increased dust absorption. Claude Martin, president.

Professional Window Cleaners Supply Co., Detroit, Mich., displayed squeegees and replacement rubbers, for which it is distributor. Jacob Bomze.

Sanatex Corp., Chicago, displayed polishing and wiping cloths distributed exclusively through jobbers. Joe Dean, sales manager.

Scent-Flo Distributing Co., Pittsburgh, Pa., electric, fan-operated deodorizing device. Jerome Black, proprietor.

Silver Creek Precision Corp., Silver Creek, N. Y., made first showing of new model "Micro-Sol" aerosol insecticide dispenser of one quart capacity, designed for fogging small areas, etc. Lawrence Schmitt, president, said the small model is identical in principle to the large mechanical disc model used extensively at army air force posts, or for municipal mosquito control projects and for agricultural and other large-scale applications.

Steccone Products Co., Oakland, Calif. Squeegees from eight to 18 inches wide. E. Steccone, proprietor, J. E. McMahon, sales manager.

Texas Feathers, Inc., Brownwood, Tex., "Bright Way" turkey feather dusters in colors. W. C. Carpenter.

Williamson Co., London, O., displayed complete line of steel wool pads for floor machines, including "Sun Ray," layer-built pad. Robert W. Cole, sales and advertising representative.

Paul O. Young Co., Line Lexington, Pa., displayed new "Hand-i-Maid" collapsible maid service truck. Paul Young, president.

Publications

Soap and Sanitary Chemicals, Modern Sanitation, Sanitary Maintenance, Institutions.

———— ♦ ————

William A. Schnell, sales engineer for 40 years with Link Belt Co. is now associated with the sales staff of Consolidated Products Co., New York, dealers in rebuilt chemical machinery.

Completely free from objectionable odor and stain, Penn-Drake Insecti-Sol is a 100% volatile solvent which will assist in attaining greatest kill for any insecticide because of its long floating characteristics. Insecti-Sol is highly recommended as a base for all insecticides, and it is particularly outstanding as a solvent for DDT solutions or DDT crystals in low concentrations.

OTHER USES FOR INSECTI-SOL: Floor Sweeping Compounds, Dust Retarders, Mechanics' Hand Cleaners, Shampoo Oils, Compounds for Cleaning Peas . . . and wherever else a kerosene-type product can be used and where the kerosene odor is objectionable.

SPECIFICATIONS

A.P.I. Gravity	49/50.5	Initial Boiling Point	385/395°F
Specific Gravity at 60°F	0.775/0.785	Distillation End Point	465/480°F
Saybolt Viscosity at 100°F	30/31 sec.	Unsulfonatable Residue	98%
Flash Point C.O.C.	170/180°F	Color	Water white
Fire Point C.O.C.	180/190°F	Odor	Practically none

Write for samples and further details

penn drake products

PENNSYLVANIA REFINING COMPANY

GENERAL OFFICES: BUTLER, PENNA.

Refinery at KARNS CITY, PENNSYLVANIA

Branches: Cleveland, O., Edgewater, N.J. Representatives in Principal Cities

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use AMERICAN STANDARD man-sized wet-mops, sweep mops and applicators exclusively. The nation's most successful distributors regularly supply those thousands of AMERICAN STANDARD enthusiasts.

for both ROUGH and smooth floors

For years the VICTORY Wet Mop has been our biggest seller. Thousands of maintenance men use VICTORY wet mops exclusively! Heavy-duty, quality yarn . . Your best bet, if you want a mop of extraordinary durability, performance and economy.

"BIG X" SWEEP MOP

This sweep mop is our leader. Snatches up dust on contact. It's nationally famous. A durable giant—available in widths up to 5 feet! Can be removed from the block for washing Once you try BIG X, you'll use no other.

HOLZ-EM APPLICATOR

You'll enjoy the fast, thorough performance of this luxurious, high-speed applicator. Reduces cost of applying wax, seals, varnish, etc. More professional floor finishers use HOLZ-EM than any other applicator

Jobbers

Complete catalog of our nationally-advertised mops, applicators, dusters, mitts, and custom-made items, on request.

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AMERICAN STANDARD MFG. COMPANY

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News

Spickelmier Names Brosie

Spickelmier Products Co., Indianapolis and Chicago, maker of household and industrial chemical specialties, recently named William H. Brosie manager of sales operations.

Walsh Manufacturers' Rep.

John F. Walsh resigned recently as vice-president of Tesco Chemicals, Inc., Atlanta, to become a manufacturers' representative. He is making his headquarters at 2255 Stephen Long Drive, Atlanta, and will cover the southeastern states from Mississippi east. Lines he is now handling include mopping equipment of White Mop Wringer Co., Fultonville, N. Y.; waxes made by Candy & Co., Chicago; sweeping compounds of Frank Miller & Sons, Chicago, and brushes, mops, dusters, etc. of Illinois Duster & Brush Co., Chicago.

Mr. Walsh had been with Tesco since 1941. At the time of his resignation to form his own firm he was a vice-president of the National Sanitary Supply Association. Before joining Tesco, he was with Pro-Tex-All Co., Evansville, Ind.

Earnings Down

For the year to November 30, West Disinfecting Co., Long Island City, N. Y., recently reported a net income of $490,302, equal to $1.55 a common share on net sales of $15,696,402, compared with $557,689 or $1.80 a share on sales of $13,317,666 in the previous fiscal year.

Powell Opens New Plant

The establishment of a new insecticide manufacturing plant in Omaha, Neb., as part of a decentralization program was announced recently by H. Alvin Smith, president of John Powell & Co., New York. The Omaha plant will have special equipment for manufacturing parathion, DDT, and 2,4-D formulations, as well as toxaphene and chlordane concentrates. The location of the new plant will permit faster deliveries in the important agricultural area around Omaha. In many cases over-night deliveries will be made to meet sudden insect infestations, as have occurred in the past. The appointment of Carl Schneider as plant manager was announced at the same time.

DOUGLAS M. MALCOLM, JR.

Supplementing the production facilities at Omaha a regional sales office has been set up. Dr. Alfred Weed, vice president in charge of sales, has named Douglas M. Malcolm, Jr., to head this office. Mr. Malcolm's territory includes the states of North and South Dakota, Minnesota, Nebraska, Iowa, Kansas and Missouri.

Rodenticide Data Folder

A folder presenting in abbreviated tabular form the most pertinent characteristics of common rodenticides has recently been announced by National Pest Control Association, New York. It is issued as leaflet Wh-337 by the Fish and Wildlife Service of the U. S. Department of the Interior.

Miss. Economic Poisons Bill

Mississippi House Bill 612, which would amend the state's economic poisons act of 1950 was introduced in the state's legislature recently. It requires all non-resident companies and firms subject to the act to designate the Mississippi Secretary of State as agent upon whom service of process may be had for any suit, unless a resident agent has been appointed. There is no restriction as to nature of suit or confinement to those under the economic poisons act. It is believed that the real intent of this bill is to make out-of-state companies amenable to product liability suits. The state plant board is authorized to require such companies or firms to post a fidelity bond not exceeding $10,000 with the board. Adjournment of the Mississippi was scheduled to take place April 17.

Floor Compounds Discussed

Three representatives of S. C. Johnson & Son, Racine, Wis., recently discussed theory and chemistry of floor maintenance compounds at a luncheon meeting of the Building Owners & Managers Association, at the Medford Hotel, Milwaukee.

FTC Cites d-Con

A complaint was recently issued by the Federal Trade Commission charging The d-Con Co., Inc., and United Enterprises, Inc., both of 531 W. Webster Avenue, Chicago, with misrepresenting the effectiveness of three rodenticide preparations. Leonard J. Ratner, Jerome S. Garland, and Gerald H. Rissman, officers of the corporations, are also cited.

The preparations involved in the proceeding are sold under the names "d-Con," "d-Con Ready Mixed," and "d-Con's Mouse-Prufe."

The company is charged with falsely advertising that its rodenticide is non-toxic and completely safe, and may be used without danger to humans and animals; that it will destroy all rats and mice on a property within 15 days and will thereafter keep the property free from rats and mice; that it contains a special attractant which is three times "more successful or luring" than any other rodenticide bait or regular feed; that it will eliminate all after-odors usually associated with the use of rodenticides; that it has been recommended by the United States Public Health Service and the United States Fish and Wildlife Service; that it will eliminate all rats and mice infesting a town and that the town will remain free from reinfestation.

The complaint also challenges

Atlanta, Ga.
Deeks & Sprinkel Co.
Boston, Mass.
Phillip A. Houghton, Inc.
Chicago, Ill.
E. J. Lewis Co.
Cincinnati, O.
Deeks & Sprinkel Co.
Cleveland, O.
A. C. Mueller Co.
Detroit, Mich.
Matteson-VanWey, Inc.
Los Angeles, Cal.
E. B. Taylor Co.
Louisville, Ky.
B. H. Boyat & Co.

GRP

Montreal, Que.
Drew, Brown Ltd.
New Orleans, La.
Griffith-Mehaffey Co., Inc.
Pittsburgh, Pa.
John D. Butts
Portland, Ore.
VanWaters & Rogers Co.
San Francisco, Cal.
E. S. Browning Co.
Seattle, Wash.
VanWaters & Rogers Co.
Toronto, Ont.
Drew, Brown Ltd.
Vancouver, B. C.
Overseas Commodities Ltd.

FOR BEST RESULTS WHEN FORMULATING NON-BUFFING FLOOR POLISHES USE GRP SUPERIOR, UNIFORM QUALITY REFINED (DEWAXED) BLEACHED SHELLAC.

- GRP Refined Bleached Shellac is Readily Soluble and Stable in Aqueous Solutions.
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— THERE IS NO SUBSTITUTE FOR PURE SHELLAC! —

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UTL Liquid Scrub Soap
Wax Soap Cleansers

HOSPITAL SOAPS:
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Castile Baby Soap
Hospital Green Jelly Soap

SYNTHETIC CLEANER CONCENTRATE
LIQUID TOILET SOAPS
40% COCOANUT OIL LIQUID SOAP
COCO-CASTILE SHAMPOOS
RUG & UPHOLSTERY SHAMPOO
PINE OIL DISINFECTANTS
VEGETABLE OIL JELLY SOAPS
PINE-JEL CLEANER
METAL POLISH
CEDAR OIL FURNITURE POLISH
MOP & FLOOR SPRAY
WINDOW SPRAY

LIQUID SOAP SPECIALISTS

Soap Jobbers....

We have many solutions for your customers' FLOOR CLEANING PROBLEMS because of years of development and research by top chemists —

VOS SCRUB. A powerful, all-around cleaner, economical in its application.

ZEPHYR-BRITE. A top grade, concentrated "hard-water" cleaner, fortified with wetting agent. Safe and effective — especially gentle on expensive terrazzo and hardwood floors. Low pH.

WAX SOAP CLEANSER. An effective, well-balanced combination of soap and wax.

SYNTHETIC CONCENTRATE. A pure combination of synthetics, effective for all cleaning. Contains no soap.

UTL SCRUB. A 20% straight soap base. May also be used for toilet purposes.

30% SCRUB. A concentrated soap product. Will clean the dirtiest floor.

Write for Description, Samples and Price List

HAAG LABORATORIES, INC.

14006 SEELEY AVE., P.O. BOX 114, BLUE ISLAND, ILL.

as false the representation that "d-Con's Mouse-Prufe" is the only mouse-killing rodenticide on the market that contains the ingredient warfarin.

In advertising the rodenticides, the respondents, according to the complaint, represented falsely that "d-Con" was the subject of an article in *Reader's Digest*. The article referred to, the complaint says, dealt with warfarin which is one of the ingredients in "d-Con." A hearing will be held in Washington April 21, before hearing examiner Webster Ballinger.

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New Hild Vacuum

Hild Floor Machine Co., Chicago, recently announced a new 55-gallon model of its heavy-duty portable vacuum. The tank holds five bushels of dry dirt or forty gallons of recovered liquid. The unit is mounted on a heavy steel dolly fitted with a hinged handle and three ball-bearing casters. A two-inch quick-opening gate valve permits the liquid contents of the tank to be easily emptied. The twenty foot vacuum hose and the caster tires are made of oil-resistant synthetic rubber. There are special attachments to clean stock bins, overhead pipes, walls, machine tools, castings, etc.

The Hild vacuum employs a "by-pass" motor which does not depend on the vacuum air stream for cooling. Thus the motor is not damaged by dust or moisture picked up by the vacuum. An independent cooling fan keeps the motor running cool.

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Floor Polish Mark Upheld

The Patent Office awarded priority for registration of "Sorb-Sall" as trademark for a floor polish to E. S. Dickerson, Jr., Philadelphia, in a suit brought by Wyandotte Chemicals Corp., Wyandotte, Mich., for registration of its trademark "Zorball".

In upholding a decision by an examiner of trademark interferences the Patent Office held that although the Wyandotte mark "Zorball" had been used earlier than Dickerson's mark "Sorb-Sall", the Dickerson mark was entitled to registration because it had actually been introduced first. This ruling was based on the statutory definition of "trademark use".

Diversey Declares Dividend

Directors of Diversey Corp., Chicago, recently declared a dividend of 20 cents a share on the company's common stock, payable March 28, 1952, to stockholders of record at the close of business March 17, 1952.

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Hercules Elects Directors

Elmer F. Hinner, general manager of the Virginia cellulose department, and Paul Mayfield, general manager of the naval stores department, were elected directors of Hercules Powder Co. at the company's annual meeting in Wilmington, March. 18.

Re-elected to the board were: Leavitt N. Bent, Wyly M. Billing, Russell H. Dunham, William R. Ellis, Albert E. Forster, John J. B. Fulenwider, Charles A. Higgins, John B. Johnson, Francis J. Kennerley, Mahlon G. Milliken, Edward B. Morrow, Anson B. Nixon, Reginald Rockwell, and Philip B. Stull.

Since 1950 Mr. Hinner has been general manager of the department manufacturing chemical cotton. For ten years prior to that, he served as special assistant and later as assistant general manager of the department. A graduate of Pennsylvania State College, Mr. Hinner has been associated with Hercules since 1927.

Mr. Mayfield was named general manager of the company's terpene and rosin chemicals operations last December. He had been assistant general manager of that department since 1943 and has been associated with Hercules for 27 years. Upon graduating from Indiana University in 1925 he was in sales and technical service work, developing markets for cellulose and naval stores products.

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Pest Control Meeting Plans

A questionnaire is being circulated to determine the number of members planning to attend the 20th annual convention of the National Pest Control Association to be held October 20-22, 1952, at the Rice Hotel, Houston, Tex. Other recent gatherings include an annual short course at Michigan State College, East Lansing, Mich., March 11 and 12; the third annual meeting of the Virginia State Pest Control Association, held March 14 in Washington, D.C.; and the Pacific Northwest Pest Control Operators Conference, held March 31 through April 2 in Spokane, Wash.

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Chlordane Herbicidal

Two University of Wisconsin entomologists, R. D. Schenefelt and Hal Simkover, claim that the insecticide chlordane kills crabgrass, if applied at ten pounds per acre, it was announced recently. Experiments have shown that chlordane actually prevents crabgrass seeds from germinating. There is a possibility that the chemical may also be active against broad-leaf lawn weeds.

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Anti-Slip Wax Tested

Huntington Laboratories, Inc., Huntington, Ind., recently tested their new "Cosmolite" anti-slip wax on the lobby floor of Memorial Hospital, St. Joseph, Mich. The company says that the product contains yellow carnauba wax with colloidal silica as the anti-slip ingredient, that it does not require frequent rebuffing, and that it is water resistant.

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Johnson Sales Meeting

S. C. Johnson & Son, Racine, Wis., recently held a two-day regional sales meeting at the Stoneleigh Hotel, Dallas, Tex. Eleven district managers from Southern and Western states participated. A. O. Fisher, field sales manager from Racine headquarters, was in charge, while W. D. Hanchey of Dallas, southern regional sales manager, acted as host.

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NSSA Book on Selling

"Pick Stars and Sell More" is the title of a new book available to members of the National Sanitary Supply Association, Chicago, on a loan agreement basis. The book is a study concerned with recruiting and selection of salesmen, complete with application forms, telephone check list and score charts. It consists of 80 pages in a ring binder, allowing for the addition of future supplements. It may be obtained by signing a loan agreement and forwarding it to the association.

HAND CLEANERS

Put your organization and your customers in the position of benefiting from the "know-how" gained during 40 years of making better and better hand cleaners.

WORKERS like the quick-lathering, gentle scrubbing, easy-rinsing action of Mione. And its very definite skin conditioning value.

MANAGEMENT likes the safe, sanitary, efficient, trouble-free Mione features, plus its economy per pound, low cost per scrub-up, and the basic economy of skilled hands always at top productivity.

EVERYONE who sells washroom supplies will be interested in the competitive price structure, the handsome jobber discount, and the steady repeat orders that come from complete consumer satisfaction.

MIONE SPECIAL Containing G-11* (Hexachlorophene)
is a GREAT new soap with GREAT profit possibilities
Full details on request
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Makers of famous hand soaps for 40 years
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MODERN CHEMICAL SPECIALTIES

by Milton A. Lesser

514 Pages

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POLISHES — Furniture, glass, aluminum, metal, silver, auto, and stove polishes.

FLOOR CARE PRODUCTS — Floor soaps and cleaners, waxes, floor oils and sweeping compounds, crack fillers, sealers and hardeners.

TEXTILE PRODUCTS — Laundry bluings, starches, sours, bleaches, mildew preventives, moth products.

PRODUCTS for LEATHER CARE — White shoe dressings, leather cleaners and renovators, saddle soaps, colored polishes.

INDUSTRIAL and HOUSEHOLD SPECIALTIES — Washroom sanitation specialties, cooling system cleaners, boiler compounds, water softeners, soot removers, air deodorizers, paint and varnish removers.

And OTHER CHEMICAL SPECIALTIES.

Check must accompany order

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Hood Advances Kunin

The appointment of Ben Kunin as general sales manager of the Hood Chemical Co., Philadelphia, was announced recently by R. Y. Cutler, president. Mr. Kunin, who has been with Hood and predecessor companies in various sales capacities for over 10 years, will be in charge of all sales, advertising and promotion.

BEN KUNIN

The brand products made by Hood Chemical are "33" and "Moonshine" bleaches, "E-Z" prepared starch, and "Zero" household cleaner. A large volume of bleach packed under the label of leading chain store organizations is also produced by Hood. Laundry bleaches, sours, and liquid cleaners for institutions and industrial purposes are also manufactured. Plants are maintained in Fullerton, Pa., Lisbon, O., and Jacksonville, Fla.

Sprayer Assn. Meets

Continuing strong demand for sprayers and dusters in 1952 in the face of restricted materials supplies was predicted by H. F. Brandt at the quarterly winter meeting of the National Sprayer & Duster Association held recently in Chicago.

Mr. Brandt is chairman of the association's markets committee which presented its annual outlook report at this meeting.

The report concluded that, barring all-out war, materials and availability of equipment should improve appreciably as time goes on, but the big problem will be to get materials, complete fabrication and distribution. He emphasized the importance of ordering early to be sure to have the equipment available when needed.

R. B. Chapin, R. E. Chapin Manufacturing Co., Batavia, N. Y., president, advised members that the association publicity activities were being coordinated with the National Farm Machinery Conservation Program through special releases to the farm and trade press stressing the correct use and care of sprayers and dusters.

Stillwaggon in New Post

After four years in the export department of Whittaker, Clark & Daniels, Inc., New York, Elmer G. Stillwaggon was recently advanced to managership of the department. He succeeds Louis Storch who has become Whittaker's import manager. Mr. Stillwaggon has had twenty-four years' experience in exporting. Prior to his association with Whittaker he was traffic supervisor and purchasing agent for Sydney Ross Co., Export Division of Sterling Drug.

Cyanamid Shifts Holder

American Cyanamid Company announced recently the appointment of P. E. Holder as assistant district manager of the St. Louis district for the Industrial Chemicals Division. He was formerly a sales representative in the company's Chicago District.

Mr. Holder was graduated from Pennsylvania State College in 1921 with a B.S. degree in metallurgical engineering. He was employed as a metallurgist prior to 1929 when he joined Cyanamid to handle sales of metal processing chemicals in the Detroit area.

Fine Organics Names Agent

The Aviation-Industrial Chemicals Division of Fine Organics, Inc., New York, recently announced the appointment of Canadian Hanson & Van Winkle Co., Toronto, as sales representatives and stocking distributors in Canada. Both aviation and industrial lines of maintenance and overhaul chemical cleaners and safety solvents are carried.

Hays Joins CSC

Robert E. Hays has been appointed district sales manager for the agricultural chemicals division, Commercial Solvents Corp., New York, it was announced April 1, by Clyde T. Marshall, general manager of the division.

ROBERT E. HAYS

Mr. Hays is making his headquarters at Jackson, Miss. He was previously with the U. S. Steel Corp. as farm products agent in Mississippi. Mr. Hays received a B.S. degree from Mississippi State College in 1929. He served as a paratrooper with the United States Army from 1943 to 1945, in England, Normandy, and Belgium.

Seek Chemists' Paintings

The National Chemical Exposition, sponsored by the Chicago section of the American Chemical Society, recently sent out a call for chemists who paint pictures as a leisure time hobby. They are being asked to submit samples of their work for display at the seventh National Chemical Exposition in the Chicago Coliseum, next Sept. 9 to 13. Gustav Egloff, director of research for Universal Oil Products Co., Chicago, has been named honorary chairman of the art exhibit and Seymour Goldfarb of Scientific Oil Compounding Co., a chemist and a modernistic painter, executive chairman of the project. Judging of the show and award of honors will be made by a jury of well known artists. Entry cards may be obtained from the National Chemical Exposition, 86 East Randolph St., Chicago 1, Ill.

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Sulfoxide for Meat Plants

Approval of the insecticide synergist, sulfoxide for use in Federally inspected meat packing establishments was announced March 14 by the meat inspection division of the Bureau of Animal Industry of the U. S. Department of Agriculture. The material may be used on the same basis as other synergists described in supplements 3 and 4 of meat inspection division memorandum No. 52.

Sulfoxide is manufactured and sold by S. B. Penick & Co., New York. It is available in technical form, in a 40 per cent solution, and combined with pyrethrins in various concentrates.

Rules on Dieldrin, Aldrin

The insecticides dieldrin and aldrin are the property of Velsicol Corp., Chicago, according to a recent ruling of the District Court for the City and County of Denver, Colorado. The decree was the result of a suit filed by Velsicol Corp. in 1949 against Julius Hyman & Co., Denver, Julius Hyman, and others for injunction and accounting.

The Court found among other things that the defendants have no right to produce, use or sell dieldrin or aldrin or any of their intermediates or derivatives.

The Court enjoined Julius Hyman & Co. from the continued wrongful use and appropriation of secrets and property of Velsicol Corp. and ordered Julius Hyman & Co. to assign forthwith the patent applications and patents covering dieldrin, aldrin, and all intermediates and derivatives thereof, and related compounds.

Julius Hyman & Co. was also ordered to account to Velsicol Corp. for damages and profits and a Special Master was appointed to state the account.

Hercules Personnel Moves

Hercules Powder Co., Wilmington, Del. announced early this month the appointment of Richard T. Yates as Assistant Director of Sales in charge of Agricultural Chemicals for its Naval Stores Department. At the same time, Hercules Naval Stores Department transferred Herbert M. Wendle from New York to Wilmington to become Assistant Director of Sales in charge of rosin and terpene chemicals. Fred Hogg continues as Director of Sales.

YATES

WENDLE

Frank U. Rapp was named Sales Manager for Agricultural Chemicals, and Richard T. Both was appointed Assistant Sales Manager. Dr. E. N. Woodbury was named Chief Entomologist.

The Hercules Naval Stores Department also announced the following changes: L. P. Killilea is transferred from Chicago to become Manager of

RAPP

BOTH

the Department's New York District Office. L. E. Anderson is transferred from San Francisco to become Manager of the Department's Chicago District Office. James H. Neal, Toxaphene Sales Representative in the Southeast, is transferred to San Francisco and appointed Manager of the Department's district office there.

KILLILEA

WOODBURY

Pressure Packing Data

A compilation of agencies and regulations having to do with the pressure packaging industry was issued recently by the Chemical Specialties Manufacturers Association, New York, and sells for $5.00 per copy. The compilation is based on a report of the subcommittee on public regulations of the Aerosol Scientific Committee of the Chemical Specialties Manufacturers Assn. Regulations affecting the packaging and shipping of various aerosol and pressured packaged products of transportation associations, the U. S. Dept of Agriculture, the C.S.M.A., government agencies, municipalities, etc., are included, as is a directory of responsible personnel.

Approve Pesticide Names

The Interdepartmental Committee on Pest Control recently approved the name malathon for the insecticidal chemical O,O-dimethyl dithiophosphate of diethyl mercaptosuccinate, and the name chloranil for the fungicidal chemical tetrachloro-parabenzoquinone. Announcement to this effect was made by S. W. Simmons, secretary of the committee.

O-Cedar Corp. Sold

American Marietta Corp., Marietta, Ohio, recently purchased 85 percent of all outstanding shares of the stock of O-Cedar Corp., Chicago, manufacturers of furniture polishes, waxes, mops and other household cleaning materials. O-Cedar is being operated as a subsidiary, without change. George Barnes will continue as president and general manager, and all other members of the executive staff will remain in their same capacities.

O-Cedar was founded in 1908 and now distributes its products through 150,000 retail outlets. In 1950 it sold more than 2,000,000 mops and 4,500,000 bottles of "Dri-Glo" furniture polish, according to Grover M. Herrmann, chairman of American Marietta. Acquisition of O-Cedar is the latest in a series of expansions by American Marietta which in 1951 had sales of more than $66,000,000.

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Amole Appoints Tzucker

The appointment of Robert Tzucker as production manager and chief chemist was announced recently by Jay Neff, president of Amole, Inc., Dayton, O. manufacturer of private label and branded cosmetics.

Prior to joining Amole, Mr. Tzucker was plant superintendent and chief chemist for World's Products Co., Spencer, Ind. From 1939 to 1942 he was chief chemist for the food, drug and cosmetic bureau, Indiana State Board of Health.

Tin Mill Plate Allotted

Secondary tin mill plate totalling 103,000 tons will be allotted to can manufacturers for the remainder of the first quarter and for the second quarter of 1952, Robert de S. Couch, director of the containers and packaging division of the National Production Authority, U. S. Department of Commerce, announced recently.

Of the allotment, 35,000 tons will be available for the remainder of the first quarter of 1952 and 68,000 tons for the second quarter. The allotments are authorized through the issuance of amendment 1 to NPA's can order, M-25.

The amendment allows canners and packers to use any quality of secondary tin millplate for the packaging of any commodity without having the material charged against percentage quotas defined in the order.

Mr. Couch declared that secondary tin mill products are accumulating in mills because present outlets are inadequate.

Order M-25 previously required users of cans made from waste-waste, mill accumulation plate and all other types of plate (except waste and black plate rejects) to charge cans to quota.

Gloss in Wax

(*From Page* 151)

The microcrystalline waxes contain a few straight chain molecules, but also contain a large portion of branched chain molecules.

Paraffin wax contains an average of less than one carbon atom per molecule in side chains, whereas microcrystalline wax contains an average of three carbon atoms per molecule in side chains. Paraffin wax therefore forms large crystals. Microcrystalline wax, on the other hand, is disturbed by the side chains, small and irregular crystals from molten wax or from solvents. Little information regarding the chemical composition of oxidized microcrystalline wax is found in the literature, but it must be assumed that it consists of similar molecules as are found in oxidized paraffin wax, such as: monobasic acids, dibasic acids, hydroxy acids, inner esters, estolides, alcohols, esters, and also paraffin.

Stearic, oleic and linseed oil fatty acids saponified with amines give good emulsions with paraffin but no gloss. Better results can be obtained by de-esterizing the wax.

Twenty-five parts de-esterized "Cardis #314" plus five parts cottonseed oil fatty acid, plus three parts D.E.A. furnish good gloss in contrast to the untreated Cardis wax. A short cut for de-esterizing wax in the kettle is indicated in the following procedure. Heat 25 parts "Cardis #314" with one part caustic potash, dissolved, in 10 to 20 parts of water until a good emulsion is obtained. Heating 10 to 20 minutes at boiling temperature is usually sufficient for splitting the esters, after which are added five parts of cottonseed fatty acid, which combines with the caustic potash. Two parts of morpholine also are added which combines with the wax acid. The next step is to heat sufficiently with about 15 parts of water. When the blend is completely uniform, dilute with boiling water. The resulting product is completely transparent, stable, not subject to waterspotting and produces good gloss.

The costs of such a wax, are low compared with carnauba and candelilla wax. The melting point is suitable and the antislip qualities can be improved by blending it with a still cheaper wax substitute, the Durez resins, or terpene phenolics.

A 50/50 blend of "Cardis #314" and "Durez Resin #219" is not only very low priced but also produces a high gloss wax, produced in a manner similar to varnishes made from rosin, resins and oxidizable vegetable oil.

A fatty acid, which contains very few straight paraffin chain molecules is linked best with such molecules. Stearic acid has little affinity for the phenol structure of the Durez resin and is not suitable for emulsifying the wax blend, as is indicated in the table.

None of these four waxes can be used by itself because of price and requirements of physical characteristics such as melting point, slip resistance and tackiness, and a blend of three or four seems to be the solution.

With the help of the table good gloss producing combinations can be chosen.

Synthetic detergents can also be used as emulsifying agents provided they fit into the wax blend structurally. "Triton X-100," an alkylated aryl polyether alcohol, has this property and furnishes good gloss in following formula: 25 gms of mix ($\frac{1}{4}$ I + $\frac{1}{4}$ II + $\frac{1}{2}$ IV) + 4 gms Triton X-100 + 2 gms D.E.A. This emulsion is gray, transparent, has good spread, is waterproof and has the appearance of a 100 per cent carnauba wax emulsion. The addition of two gms D.E.A. is necessary for saponification of wax acids.

The presence of aryl and alkyl groups in "Triton X-100" enables it to solubilize perfumes and also chlorinated organic compounds used as insecticides, germicides, and fungicides. Such emulsions, suitably proportioned, can be incorporated easily into a wax emulsion without impairing gloss and other properties.

Wax emulsions with insufficient gloss or no gloss can sometimes be corrected by adding gloss improving ingredients, such as certain resin emulsions, also by heating and stirring the emulsion somewhat above the melting point of the wax blend, at about 180°F., and making adjustments. But the safest and surest method is still the recovery of the wax by splitting with acids and re-emulsification of the wax in the concentrated state. Such corrected and reworked emulsions are more highly purified and usually give higher gloss.

Solvent type and paste waxes also have to be coupled structurally in order to prevent crystallization and separation of certain wax ingredients from other waxes as well as from the solvent.

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Allergy Liability

(*From Page 46*)

tended purpose. This duty is imposed under the common law of negligence and the statutory law of sales. Therefore, it is apparent that where a particular product is not safe or fit for use by the general public, a duty is breached and the one who manufactured or sold the product is subject to liability although the particular person injured may have had a peculiar sensitivity to the product not encountered in the average person. The allergism in such a case would be a fortuitous circumstance. As the preceding review of decisions indicates, allergic claimants have recovered in a relatively large number of cases in which the product involved was hazardous to a normal person.

The area of conflict and uncertainty is approached in the situation where the product causing the injury is safe for use by a normal person but is unsafe for use by an allergic person. In this area two general schools of thought predominate.

Some courts following the dicta of *Flynn v Bedell* have denied recovery wherever the injury complained of was due to the peculiar sensitivity of the person injured. This rule flourished particularly in Massachusetts until subsequent decisions adopted a more liberal attitude towards allergic claimants.

Under the more generally prevailing view the right of an allergic claimant to recover for injuries sustained as a result of using an allergen-containing product is not automatically foreclosed, but depends largely upon the extent to which the particular allergy is encountered. The size of the class of allergics to which the claimant belongs relative to the total consumer population and the extent to which the existence of this class is known in science and industry become paramount considerations. Upon the basis of the decided cases, for example, a product which would be unsafe for use by four percent of the consumers who used it would undoubtedly not be "reasonably fit" for use and any injury to a person within this allergic class would be "reasonably foreseeable." Conversely, where only .1 percent of the consumer population would react to the allergens in a particular product, it may be safely assumed that the chances of recovery would be slim. These are the rough safety zones which have been shaped by the course of prior court decisions. Within this penumbral region lies a fertile field of speculation.

Under the present state of the law, it would seem that the essential elements necessary to establish the defense of allergy in most jurisdictions would be (1) the absence in the product of any substance or ingredient injurious to the normal user when used as directed, (2) the allergy of the plaintiff to the product, and (3) the uniqueness of the allergy in occurrence and in scientific and industrial knowledge.

Conclusion

AN appraisal of the law of allergies as it appears to exist today cannot possibly be based entirely upon the substantive rules which have been developed by the courts over the past forty years. The law is still in a state of flux and it is to be expected that as new products are placed on the market in response to the growing diversified needs of the consumer and as the scientific knowledge of allergens and allergies is broadened with research, new problems will be generated and brought to the courts for solution. Necessarily, issues of public policy will play an important role in determining the boundaries of a manufacturer's or a dealer's responsibility to the allergic consumer.

There are certain conclusions which may be made at this time upon the basis of the decided cases and the current issues of public policy which have been presented.

First, the scientific nature of allergies must be given more consideration in evaluating the claim of a person whose injury is caused by his own sensitivity to a particular product. The decided cases have too frequently glossed over the fact that every conceivable type of product is an irritant or is allergenic to some people, that all people are allergic to something, and that allergies are by hypothesis strongly individualistic and unpredictable. The notion that chemical products are uniquely allergenic and that the allergic consumers of these products are normal should be dispelled.

Second, extreme caution should be exercised in enlarging the boundaries of a seller's liability beyond the established contours of the law of negligence and of warranty. A sound equilibrium must be maintained between industry and consumer interests to the end that the safety of the consumer is promoted without unduly burdening industry with the unreasonable demands of an insurer's liability. The tail should not be allowed to wag the dog in an effort to placate the peculiar physical problems of an infinitesimal few. For example, the statutory warranty of fitness should not be interpreted to constitute an agreement that a product can be used with absolute safety by every conceivable consumer or is perfectly adapted to the intended use, but only that it should be *reasonably* fit therefor. The warranty must be reasonably construed in the light of common knowledge with reference to the nature of the product involved. And the tort theory of foreseeability should not be extended beyond a rule of reason. Unfortunately, a few of the decisions have employed different criteria in measuring a seller's responsibility in warranty and tort to allergic consumers.

The words of the Supreme Court of Utah in the latest reported decision on the subject of allergies add a fitting summary to these conclusions:

"We are sympathetic with appellant and her misfortune, but cannot require the merchant to assume the role of absolute insurer against physiological idiosyncrasy. To do so also would invest the elusive ordinary prudent man with a quality of foreseeability that would take him out of character completely. Every substance, including food, which is daily consumed by the public, occasionally becomes anathema to him peculiarly allergic to it. To require insurability against such an unreasonable happenstance would weaken the structure of

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common sense, as well as present an unreasonable burden on the channels of trade."

References

1. "How to Live With Your Allergy," Dr. Walter C. Alvarez, Mayo Foundation, 1951.
2. The decisions reviewed in the text are limited to contact allergies. Cases involving ingestant, injectant, and inhalant allergies include Dorr v Fike, 9 S.W. (2d) 318 (Ark., 1928); Mutual Life Insurance Co. v. Dodge, 11 F. (2d) 486 (C.C.A. 6th, 1926); Cleary v John W. Maris Co., 19 N.Y.S. (2d) 38 (1940).
3. *The Encyclopedia Americana*, vol. 1, pp. 417-418.
4. "What's Your Allergy?" Farmer and Hexter, 1939; See also, "Synopsis of Allergy", Dr. Harry L. Alexander, 1947.
5. "Are You Allergic?" Hilliard & Coghlan, 1943.
6. See, "Allergy to Cottonseed and Other Oilseeds and Their Edible Derivatives," National Cottonseed Products Association, containing excerpts from the record of the hearings before the Federal Security Administrator in the Matter of Fixing and Establishing Definitions and Standards of Identity for Mayonnaise, French Dressing, and Related Salad Dressings, 1947-1948.
7. *Supra* note 4, p. 3.
8. *Supra* note 4, p. 3.
9. *Supra* note 1, pp. 4-5.
10. *Supra* note 5, p. 162.
11. 143 N.W. 48 (Mich., 1913)
12. 85 S.W. (2d) 748 (Mo., 1935)
13. 4 A. (2d) 73 (N. J., 1939)
14. 52 A. (2d) 666 (N. J., 1947)
15. 136 N.E. 252 (Mass., 1922)
16. 192 N.E., 631 (Mass., 1934)
17. 19 N.E. (2d) 697 (Mass., 1939)
18. 49 N.E. (2d) 425 (Mass., 1943)
19. 67 N.E. (2d) 404 (Mass., 1946)
20. 59 N.E. (2d) 293 (Mass., 1945)
21. See also, Carter v Yardley, 64 N.E. (2d) 693 (Mass., 1946)
22. Zager v F. W. Woolworth Co., 86 P. (2d) 389 (Cal., 1939)
23. 3 A. (2d) 650 (Me., 1939)
24. 19 A. (2d) 502 (Pa., 1941)
25. 38 N.E. (2d) 801 (Ill., 1942)
26. 139 P. (2d) 788 (Ore., 1943)
27. 136 N.E. 254 (Mass., 1922)
28. 66 N.E. (2d) 792 (Mass., 1946)
29. See also, Cicarelli v Lipshetz, 8 Conn. Supp. 529 (1940) (lipstick —recovery denied) Walstrom Optical Co. v. Miller, 59 S.W. (2d) 895 (Tex., 1933) (dye in eyeglass frames — recovery denied)
30. 122 N.Y.S. 778 (1910), rev'd on other grounds, 101 N.E. 799 (N. Y., 1913)
31. 19 N.Y.S. (2d) 38 (1940)
32. 160 N.E. 398 (N.Y., 1928)
33. 250 App. Div. 832 (N. Y., 1937) (memo opinion)
34. 87 N.Y.S. (2d) 686 (1949)
35. 207 P. (2d) 110 (Cal., 1949)
36. 235P. (2nd) 525 (Utah, 1951)

Norton Hollingshead Pres.

Wilbur H. Norton, vice-president of General Motors Corp., Detroit, was named president and a member of the board of R. M. Hollingshead Corp., Camden, N. J., April 5. Stewart Hollingshead, president since 1945, becomes chairman of the executive committee; R. M. Hollingshead, Jr., remains as chairman of the board and T. J. Bagley continues as executive vice-president.

Mr. Norton is a former president of Montgomery Ward and Co., Chicago, a position to which he was elected when he was 40. He held the position until July, 1948, when he joined General Motors in September of that year. Mr. Norton is directing plans and policies of the company, of which he is the chief executive officer.

Hollingshead Corp. was founded by R. M. Hollingshead in 1888, with "Castille Cream Harness Dressing" as the original product. Today Hollingshead chemicals, including automotive, aviation, industrial and household products are sold in the United States and 137 foreign countries. The firm manufactures under its own Hollingshead and "Whiz" trade names and supplies private label merchandise.

Fat Decolorizing

(*From Page 55*)

is returned to the work tank by pressure differential. A small amount of water vapor periodically accumulates in the work tank and must be drained off. It is at this drain where two of the alarm sampling intakes are located.

Outlets of all relief valves in process equipment are piped into two blow-down systems, one high pressure and one low pressure. Header of the low pressure system is piped directly to a tall flare stack while header of the high pressure system goes to a drum where vapors are accumulated and directed to the suction side of the propane compressor via a jet condenser and trap.

Throughout the entire process, there are many chances for propane to escape around pump seals, flanges, valves and pressure vessels but the automatic, continuous mechanical gas sampler and analyzer minimizes the chances for a build-up of undetected combustible concentrations.

The entire plant is equipped with explosion-proof electrical and lighting fixtures. Employees wear spark-proof shoes and visitors are required to put on rubber footwear over their street shoes. No matches, lighters or cigarettes are permitted on the premises. These are deposited in a metal box at the gate upon entering the plant. Spark-proof tools are used for all maintenance work. Extreme care is used to avoid trapping propane between two closed valves. Steam hoses are provided to blanket propane leaks until the line is repaired or the pressure is reduced. All steam hoses are grounded to avoid the possibility of the steam jet developing static electricity.

Production Clinic

(*From Page 93*)

use, however, in many directions.

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C. M. C. Information

THE Nobel Division of Imperial Chemical Laboratories, Stevenston, Ayrshire, England, recently sent four reprints of articles which were published in English journals by F. J. Pollock and co-workers. Manufacturers of synthetic detergents may find it advantageous to obtain copies of these papers which appeared in *Soap, Perfumery and Cosmetics* in the years 1949 to 1951.

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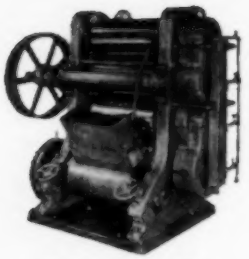

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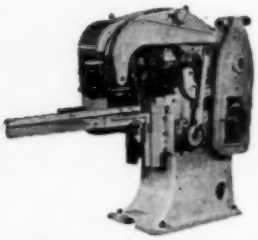

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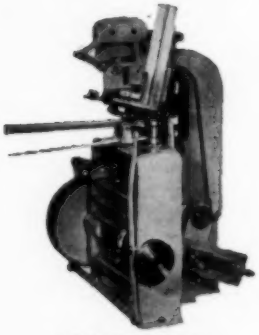

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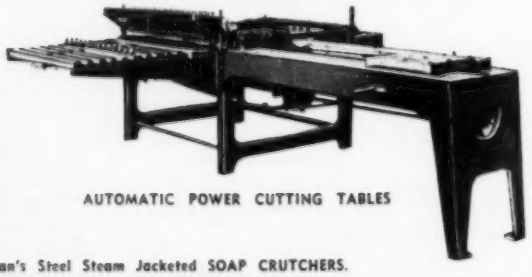

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Positions Open

Soapmaker: All-around soap maker wanted. Give full details first letter. Factory located Pacific Coast. Address Box 512, c/o *Soap*.

Sales & Sales Manager: Live, work and play in the Sunny South. Sanitary supply firm, well established needs the services of a competent experienced representative to travel in Florida, both sales and training capacity. Company needs executive as well as sales person. This is a wonderful opportunity to better yourself. Must be able to stand thorough check on reliable references. Some financial interest in company may be had if successful. Address Box 514, c/o *Soap*.

Salesmen Calling On Maintenance Trade (Commercial bldgs., institutions, hospitals, industry). If you are selling paper towels, waxes, disinfectants, etc., we have a full line of high-class cleaners which can be sold in conjunction with your present line. Most territories open. Excellent opportunity to increase your earnings. Only experienced men with following apply. State territory in which you are interested. Address Box 515, c/o *Soap*.

Salesmen: To handle our water emulsion paste wax. High quality—assures repeated sales. Sideline, part and/or full time. Address Box 516.

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Sales: Exceptional opportunity for right man to connect with nationally known manufacturer of industrial cleaning materials to develop and manage new sales division of dishwashing products. Must have experience in selling to restaurant, hotel and institution field. Ability to select, train and manage this expanding division a prime requisite. Must be willing to travel. Send resume and salary requirements in confidence for early interview. Address Box 517, c/o *Soap*.

Chemist Wanted: Well known manufacturer of sanitary chemicals has opening for a chemist experienced in wax emulsions, disinfectants, soaps, polishes and insecticides. Control, testing and development. Send complete resume of age, education, experience, salary desired. Opportunity with future. Permanent. Located in Metropolitan New York area. Our personnel is familiar with this ad. Address Box 518, c/o *Soap*.

Situations Wanted

Soap Plant Manager: Can take full charge all operations small or medium plant making laundry, milled toilet, specialties, etc. Over 20 years practical working experience with three companies. Now employed. Twelve years present job. Fine record, best references. Location immaterial. For full particulars, communicate with Box 519, c/o *Soap*.

Plant Supt.: Chemist for past 15 years directing all manufacture, personnel, etc. for plant making insecticides, soaps, cleansers, cosmetics will make change. Direct compounding, shipping government contracts. Age 40, excellent record, best references. Can take over full management large or small plant. For details, write Box 520, c/o *Soap*.

Florida Representation: Young soap manufacturer retiring from business, moving to Florida. Desires to be a little active. Address Box 530 c/o *Soap*.

Sales Representation offered—Calling on principal government buying offices in the East, this includes conferring with procurement officers, attending bids assistance in interpreting specifications, expedition of payments. Address Box 531 c/o *Soap*.

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Agents Wanted: World famous makers of high standard perfume oils and flavors looking for aggressive agents throughout the United States and Central and South America. Interesting prospects for active people. Write for full information to Box 521, c/o *Soap*.

Sales Agent Wanted: Leading manufacturer of industrial protective hand creams desires services of distributors or manufacturers' agents for territory not covered outside New England. Splendid opportunities for aggressive representatives. Address Box 522, c/o *Soap*.

Aggressive Sales Organization in Philadelphia desires another line, preferably in the chemical raw materials field, to handle in this territory. Established over 25 years. Have developed good buyer contact. Address Box 523, c/o *Soap*.

Mfg. Facilities Available: Private label mechanics hand soap manufacturing facilities available in middle west. Our operation makes it necessary to limit accounts to companies requiring large quantities. For details write to Box 524, c/o *Soap*.

Will purchase Immediately: Pneumatic Packaging Machine, used for chips, powder, cleanser; also dry mixers, chip dryers, crutchers, and automatic soap press. Address Box 527, c/o *Soap*.

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Machine Wanted: Complete Proctor & Schwartz soap flaking unit (2 rolls) and dryer. Address Box 526 c/o *Soap*.

Bought - Sold - Traded: Para, DDT, BHC, naphthalene, pyrethrum; other chemicals, oils, waxes, colors, etc. Chemical Service Corp., 92-06 Beaver St., New York 5, Tele.: HAnover 2-6970.

Soap Plant Wanted: We are now manufacturing over $20,000,000 in various lines and wish to expand by acquisition of assets or stock of one or more industrial companies. In our negotiations the seller's problems and wishes will receive full consideration. Present personnel will normally be retained. Address all replies "Confidential." C. J. Gale, Sec., 233 Broadway, N. Y. 7, N. Y. BA 7-1819.

Wanted: To expedite production—soap-making equipment including kettles, frames, pulverizers, cooling rolls, chip dryers, plodders, cutting tables, evaporators, packaging units. Will consider a set-up plant now operating or shut down. When offering give full particulars. P. O. Box 1351, Church St. Sta., New York 8, N. Y.

For Sale

For Sale: Evaporator, Swenson . . . used, good. New cost approximately $17,000. As is, where is . . . $3450. Extruder, double worm, stainless steel die head and worms. Doering Mfg. New cost approximately $5700. As is, where is . . . $1850. Stainless steel jacketed tanks and kettles, many sizes . . . write your needs. Kelly & Co., 2701 Olive St., St. Louis 3, Mo.

For Sale

Plant For Sale: Wadsworth, Ohio. 10,000 sq. ft. R.R. siding and truck dock. Ample labor. Population 10,000. All types of utilities. Excellent for any type of manufacturing. Address Box 525, c/o *Soap*.

For Sale: New 1500# Soap crutcher; cutting table; Jones press; wrapper type S; 3000# crutcher motorized; 3&5 roll mills; 10" plodder; other soap machy. I. E. Newman, 5602 Blackstone Ave., Chicago, Ill.

For Sale: Proctor & Schwartz 6-Fan automatic soap chip conveyor dryer with 48" diam. chilling roll unit. Excellent condition. Address Box 529, c/o *Soap*.

For Sale: 20-bbl. soap crutcher; 600# jacketed horizontal ribbon mixer; from 50# to 2000# horizontal ribbon powder mixers. Broughton 50 cu. ft. double arm powder mixer. Steam jacketed steel mixing kettles. Stainless steel steam jacketed kettles. Stainless steel tanks up to 16,000 gal. Shriver 30" cast iron filter press, 35 plates, center feed, open delivery. Perry Equipment Corp., 1410 N. 6th St., Phila. 22, Pa.

For Sale: Viscolizers and homogenizers, completely rebuilt and guaranteed and with late type stainless steel sanitary heads and pressure valves. Also rebuilt machines with standard heads and valves — or good used machines. Send for bulletin and prices. Otto Biefeld Co., Watertown, Wis.

For Sale: Complete soap or sanitary chemical plants. Also individual items such as crutchers, plodders, mills, mixers, presses, dryers, filling equipment, etc. R. Gelb & Sons, Inc., State Highway No. 29, Union, N. J.

For Sale

Are You Posted on SYNTHETIC DETERGENTS and SOAPS & DETERGENTS? see page 116.

For Sale: 20 all steel soap frames, ID 54" long, 14" wide, 42" high. OD 59½" long, 18½" wide and 50½" high. Small and large roll for Proctor & Schwartz soap chip dryer, also automatic soap cutting machine. Address Box 528, c/o *Soap*.

For Sale: Our stock of Torpedo Aerosol Sprayers made by Bromm Chemical Co., at your own price. St. Louis Janitor Supply Co., 2025 Washington Ave., St. Louis 3, Mo.

Latest American Book on SOAPS & DETERGENTS? see page 98.

For Sale: Proctor & Schwartz 6-Fan automatic soap chip dryer, 2-roll chilling unit, large roll 48" dia. Empire State foot presses. Soap frames. Allbright-Nell 4'x9' chilling rolls. Lehmann 4-roll W.C. 12"x36" steel mill. Houchin 8-1/2"x16" 3-roll and 18"x30" 4-roll Granite stone mills. Kettles and tanks, iron, copper, aluminum and stainless dryers vac. & atmos. Jones automatic soap presses. Slabbers and cutting tables, hand & power. Crutchers. Six-knife chipper. Filter presses 12" to 42". Wrapping & sealing machines. Powder, paste & liquid mixers. Rotex sifters. Filling machines, grinders. Hammer mills. Colloid mills. Three-roll steel mills, 8"x22", 9"x32", 12"x30" & 16"x40". Portable elec. agitators pumps, etc. Send for bulletin. We buy your surplus equipment. Stein Equipment Co., 90 West Street, New York 6, N. Y. WOrth 2-5745.

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R. A. Jones Automatic Soap Press.
Day & Robinson 800, 1500, 2000 lbs. Powder Mixers and Sifters.
Day 20" x 39" 3 Deck, Allis Chalmers, Great Western Sifters.
Houchin Aiken and National 3 to 5 Roll Soap Mills, porcelain also.
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For Sale

Latest Book on MODERN CHEMICAL SPECIALTIES . . . see page 116.

For Sale: 1—4′ x 8′ steel flaking or cooling roll; Union Bag sewing machine, 80500 DZ head, M.D.; Sperry 24″ Recessed cast iron filter press; Shriver 30″ plate & frame C-1 filter press; Sperry 30″ aluminum P & F filter press; Munson 2000 lb. rotary batch mixer; 1 - Houchin Perfection jacketed crutcher, 3000#; 1—Std. Knapp self-adjusting gluer-sealer and compression unit; 100 lb. jacketed soap crutcher; 1—Day No. 71S/S Roball Sifters; Size 11, 23, 43 and 53 Rotex screens; Dopp 350, 650 gal. jacketed, open kettles; Jones automatic "K" soap press; 1—Houchin #4 para block press; Mikro No. 1 and No. 2 Pulverizer; 1—Wolf 1800 lb. ribbon blender; 18 Aluminum storage tanks, 800, 600 and 250 gals.; Special—27 unused rectangular 200 gal. aluminum storage tanks at only $75 each plus $15 crating. Only a partial list. Send us your inquiries. We buy your idle machines. Consolidated Products Co., Inc., 15-21 Park Row, New York 38, N. Y. Phone BArclay 7-0600.

Johnson Names Croft, Rader

S. C. Johnson & Son., Inc., Racine, Wis., announced recently the election of Hamilton F. Croft as president of S. C. Johnson & Son, Ltd., Brantford, Ont., and H. F. Johnson, formerly president of the Canadian subsidiary, as chairman of the board. Mr. Croft relinquished the post of vice-president of the international division of S. C. Johnson & Son, Inc. He continues to serve as a director of the parent company.

Rector R. Rader, former manager of Johnson's export department has been appointed manager of the international division. In his new position, Mr. Rader works with the firm's foreign subsidiaries in Canada, England, France and Australia as well as Johnson's manufacturing agents in other countries. In addition to directing the company's general export business from headquarters in Racine, Mr. Rader serves on the management committee of S. C. Johnson & Son, Inc.

Mr. Croft has been with Johnson for 31 years. He joined the company in New York as a salesman following World War I. A year later he was transferred to Canada when the company established a subsidiary in Brantford. He was made sales manager of the Canadian company in 1926 and managing director in 1933, assuming the added duties of vice president in 1933.

R. R. RADER

M. F. CROFT

Mr. Rader joined Johnson as a salesman in 1938 and became manager of the company's Denver sales district in 1945. In 1946 he was appointed export manager.

Ozonization of Oleic Acid

Emery Industries, Inc., Cincinnati, has received Government permission to start construction on its new two-million dollar plant for oxidation of oleic acid by ozonization, it was announced recently. In the research program leading to what is said to be the first large-scale use of ozone in a chemical process industry Emery cooperated with Welsbach Corp., Philadelphia. Some of the new technics involved will be the subject of patents.

Oxidation of oleic acid results in azelaic acid and pelargonic acid. The new "ozone" process will greatly increase the output of these two chemicals. Azelaic acid consequently will be, with one possible exception, the cheapest higher molecular weight dibasic acid on the market, and pelargonic acid will be the cheapest monobasic aliphatic acid of its type.

Production from the new plant may be expected by the middle of 1953. The pilot plant has been operating for many months.

Chemical Research Moves

Chemical Research Products, Inc., Norfolk, Va., recently moved from 235 W. Olney Road to its own new plant at 1034 W. 45th St., it was announced by Sylvan B. Gordon, president. Facilities available at the new cinder block plant, which provides 40,000 square feet of floor space, include laboratories, manufacturing space, railroad sidings and 20,000 square feet of warehouse space. The company manufactures "Sanitabs," tablet form germicides.

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I'm sales manager for a well known grocery product. My name isn't important . . . but my story is.

Couple of months ago a Donnelley Merchandising man called to talk about a manual sampling and couponing plan for increasing our sales.

I "bought" everything he said until he pointed out that the store checks, a part of the plan, might increase our distribution. Then I announced that we didn't need any store checks; we already had 100% distribution in our markets.

But that didn't stump him; he still wanted me to use the complete plan. So I tossed him a market—just to see what manual sampling and couponing would do for us.

Wasn't long before sales started jumping a bit in the test market . . . more than a bit. Couldn't figure it out at first because our samples and coupons were just getting into the homes. "Hey," I said, "what's going on here?"

I got my answer next day when the Donnelley man dropped in to report. Said it was too early to tell how much effect samples and coupons would have on sales. But he did have a little list I'd be interested in—and I certainly was! That list showed 153 grocery outlets now handling our product in the market—*43 of them brand-new accounts!*

Well, if we had 100% distribution before, we've got 139% now—*and is my face red!*

MORAL: Whether your figures show 100% distribution or 10%, *don't* take it for granted. *Do* call in the Donnelley Merchandising Division for help in boosting distribution and sales with store detailing, manual sampling, couponing. *Phone . . . or mail this coupon today!*

THE REUBEN H. DONNELLEY CORPORATION
Merchandising Division, Dept. B7

407 E. 25th St.	50-22 23rd Street	401 N. Broad St.	110 Arlington St.
CHICAGO 16	LONG ISLAND CITY 1, N.Y.	PHILADELPHIA 8	BOSTON 16
VIctory 2-3232	RAvenswood 9-0500	WAlnut 2-2434	LIberty 2-1737

Please send additional information about—

☐ Store detailing ☐ Manual house-to-house sampling or couponing ☐ Installation of point-of-purchase displays ☐ Store checks

Name.....

Company.....

Address.....

City.....Zone.....State.....

QMC Soap Purchases

(*From Page 42*)

year were $.04572 to $.062 per pound factory origin.

During the period from January 1, 1951, to March 1952, the New York Quartermaster Procurement Agency purchased 9,034,000 pounds of the following types of soap: 116,222,000 pounds of G.I. soap; 520,000 pounds of powder, hand scouring, and mechanics soap; 3,428,000 cakes of toilet and white floating soap; 25,300,000 cakes of toilet, soft, hard, or sea water soap; and 4,600,000 pounds of dishwashing compound.

NPA, Pesticide Group Meet

Raw material supply problems affecting availability of insecticides were reviewed at a recent meeting of the household, industrial, and dairy insecticides industry advisory committee and the National Production Authority.

NPA spokesmen pointed out that methylene chloride is still in extremely short supply. Total monthly request for this material approximates 9,000,000 pounds, as against an estimated supply of 3,000,000 pounds. The bulk of methylene chloride is now being absorbed by military requirements, but some civilian requirements are being met.

NPA reported that the committee's previous recommendation regarding the release of some Government stocks of pyrethrum for commercial use is now under active study by the Munitions Board. Industry was further informed that M-25, the tin container order, is being amended to make available to the can industry 103,000 tons of tinplate which will not be subject to the quota restrictions of the order.

Pointing out that brass is still in short supply, NPA indicated that, on the basis of present estimates, supplies of this metal in the second quarter of 1952 will be approximately the same as during the preceding quarter.

The committee recommended that 1,800 tons of brass mill products be made available to meet the requirements of the aerosol valve industry.

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Tamms SILICA
Soft Amorphous Type

Grades to meet various abrasive requirements . . . for all kinds of metal polishes.

Tamms TRIPOLI
Rose and Cream Colors

Once-ground, double-ground and air-float — ideal grades for buffing and polishing. Also rubbing compounds.

Tamms products are widely used in the polish trade, preferred for quality results. Write today for prices and samples.

Tamms MULTI-CEL
Diatomaceous Earth

Top grade, ground extremely fine. A milder abrasive than silica. Best for silver polish.

Tamms BENTONITE
(Suspension Medium)

Very finely-ground colloidal clay. Wholly soluble — absorbs 5 times its weight in water.

Dept. RM-3, TAMMS INDUSTRIES, Inc., 228 N. La Salle Street, Chicago 1
Formerly TAMMS SILICA COMPANY

Tale Ends

NO DRAWERS in your desk is almost like having no pockets in your pants. But, they tell us that none of the private offices of the top brass in the new super deluxe Lever Brothers office building on Park Ave., N. Y., will have desks with drawers. Just tables. It seems that nobody is going to file away in a desk drawer and forget any important documents in this new Lever House set up. No place even to cache a handy bottle for emergency treatment of sudden weak spells or snake bite.

* * *

After 110 continuous years in candle manufacture, Emery Industries recently sold out this end of their business which had long since become dwarfed by the company's wide expansion in fatty acids and other phases of fat chemistry. All of which recalls that even soapmaking in the early days was a sideline of candle manufacture. In fact, the original name of Emery Industries, changed not too many years ago, was the Emery Candle Co. But, unlike the carriage manufacturers and the automobile, oil lamps and electricity merely brought a switch in the Emery business over the years to bigger and broader fields.

* * *

Lion of the Natl. Sanitary Supply Assn. convention in Chicago last month was easily Warren Haviland, president of the Warren Haviland Corp., St. Louis, and son-in-law of Charles Buschart, head of Usano Corp., St. Louis. Warren, tank corps lieutenant, lost an arm in Korea plus other serious wounds and has been recuperating at the Veterans Hospital, Battle Creek, Mich. The big blond talked a three-day pass out of the doctors at Battle Creek so he could attend the NSSA meeting. Received fine ovation. While Warren is away, his partner, Joe Loeber, another of Charley's sons-in-law, is running the squeegee business in St. Louis.

* * *

Charley Krebs of American Standard out Chicago way, celebrated his 70th birthday during the National Sanitary Supply Assn. meeting in that city last month. The congratulations were flying thick and fast around the American Standard booth at the NSSA show. We didn't suspect that Charley was 70 until he told us, although it seems he has been around in the sanitary supply field with his applicators longer than we can remember—and that's a long time. Congratulations from us, too, Charley!

* * *

When we threatened to expose a soap mogul we caught shaving with an electric razor some months ago, he bribed us with several martinis and a fancy dinner. Having bought our silence, we figured he would go right on using his beard buzzer. But, no, gentle reader. It seems that our threat must have reformed the bloke, for, lo and behold, when we happened to drop in on him recently at his hotel in a mid-west city, there in the bathroom was not only a nifty safety razor, but (1) shave cream, (2) after-shave lotion, (3) talcum powder, (4) hair goo—all strictly on the up-and-up and bearing his own company brand.

* * *

Turkish harems with their voluptuous, veiled dames exist today only in the memory of old timers, stated a disappointed J. L. Brenn, president of Huntington Labs. of Huntington, Ind., recently upon landing in N. Y. after a trip around the world by air with Mrs. Brenn, including several days snooping around the back alleys of Istanbul. But, he did learn a lot about the economic troubles of the world in visits to numerous points in Asia and the Middle East which he will discuss as a featured speaker before the 38th mid-year meeting of the Chemical Specialties Mfrs. Assn. in Boston in June.

Marty Peters, newly elected president of the Natl. Sanitary Supply Assn. who is associated with Moore Brothers, New York, is among other things a golfer of note. He learned to shoot in the 70s the hard way like many of our better golfers, up from the caddy ranks. Out and around the sanitary supply industry of the country, he probably knows more people and more people know him than any two persons in captivity. Martin "Dynamo" Peters, the boys call him in N. Y.!

* * *

At Tulsa, Oklahoma, a housewife recently encountered a strange gent in her bedroom. By way of explaining his presence there, he mentioned that he was a soap salesman, and would the lady like to buy some. She screamed, called police, and the gent was hastily carried off to the clink. Because we have many friends who sell soap for a living, we hasten to point out the apparent error in the technique of this particular salesman. By way of warning, we suggest that any soap salesman finding himself unexpectedly in a lady's boudoir should not attempt to sell soap. Really, that is carrying salesmanship a trifle too far.

Target . . .

A WELL-AIMED bullet hits the target just like good industrial advertising in the right magazines,—those magazines which specialize in serving the markets which you want to sell. For example, the one and only magazine today which specializes in serving the field of soaps, detergents, insecticides, floor waxes, deodorants, aerosols, and other chemical specialties and sanitary supplies is

SOAP and Sanitary Chemicals

254 West 31st St., New York 1

Since 1893 a leader among Manufacturers,
Importers and Suppliers of Basic Materials
for Perfume and Perfume Specialties

Ungerer & Co.

161 Sixth Ave., New York 13, N. Y.
Plant and Laboratories: Totowa, N. J.

CHICAGO · BOSTON · PHILADELPHIA · ST. LOUIS · LOS ANGELES · ATLANTA

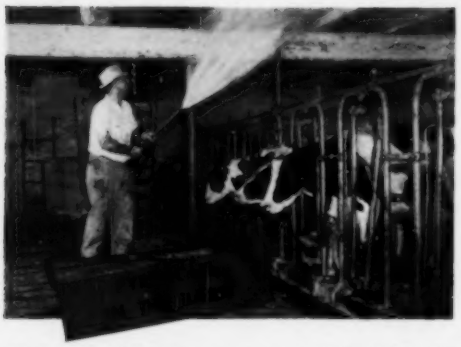
All along the "Milk Route"

Pyrenone* protects against insects

U.S.I.

*Reg. U. S. Pat. Office.

Of the many insecticides available to the American dairyman, Pyrenone is one of the very limited group recommended for use on the cow and is the only one effective on tabanids (horseflies).



Surface treatments with Pyrenone sprays are generally used on places that are most favorable to flies for the quick knockdown and kill that Pyrenone gives, without toxic hazards to animals or operators.

The freedom from toxic hazards, plus the quick knockdown that Pyrenone gives, make it a preferred insecticide for use in premises where milk is handled and cooled.

Wherever milk products are processed, bottled, packaged or stored, Pyrenone gives effective control of a wide range of insects — yet without hazards to either employees or products.

Fly and insect annoyances in the home are also controlled with Pyrenone-based insecticides with similar effectiveness, economy, quick results and safety-factor advantages.

FROM FARM TO FAMILY, Pyrenone-type insecticides are relied upon for effective and economical pest control — free from hazards. All kinds of products made with Pyrenone meet the specialized needs of the places where milk or food is produced and handled.

Oil-type sprays . . . aerosols . . . emulsifiable sprays and insecticide dusts and powders are made with Pyrenone. It is rapidly gaining preference in the dairy industry because properly-formulated and applied Pyrenone insecticides present no toxic hazards to farmers, spray operators, animals or to milk or milk products.

Pyrenone is effective on *all* species of flies and a wide range of other insect pests such as roaches, silverfish, weevils, etc. Keeping these pests away from the food supply lines is a never-ending job of careful sanitation, and Pyrenone helps sanitation with a quick knock-down and kill of obnoxious and destructive insects.

Formulate your insecticides using Pyrenone. Put Pyrenone on your label (write for full particulars on use of this trade mark). Through national advertising, people all along the "milk route" from farm to family know that Pyrenone means an exceptional combination of the factors of effectiveness, economy and freedom from hazards.

U.S.I.

INDUSTRIAL CHEMICALS CO.

Division of National Distillers Products Corportion, **60 East 42nd Street, New York 17, New York**

In Canada: Natural Products Corporation, Montreal and Toronto

Branches in principal cities.